

**ADOPTED REGULATION OF THE
STATE ENVIRONMENTAL COMMISSION**

LCB File No. R133-24

EXPLANATION – Matter in *italics* is new; matter in brackets ~~omitted material~~ is material to be omitted.

AUTHORITY: §§ 1 and 2, NRS 445A.855 and 445A.860; §§ 3-13, NRS 445A.860.

A REGULATION relating to public water systems; defining the term “water project” for the purposes of certain provisions governing the treatment of water; revising monitoring requirements for certain contaminants for certain water systems; revising certain requirements for a water project to treat or blend groundwater; revising certain definitions related to public water systems; revising certain provisions relating to the design and construction of a treatment facility of a public water system; revising certain fees relating to public water systems; and providing other matters properly relating thereto.

Legislative Counsel’s Digest:

Existing law authorizes the State Environmental Commission to adopt regulations as may be necessary to govern the construction, operation and maintenance of public water systems if those activities affect the quality of water. (NRS 445A.860) Existing law requires the Commission to adopt regulations relating to primary drinking water standards, including those that prescribe maximum permissible levels for contaminants in a public water system and provide for the monitoring and reporting of water quality. (NRS 445A.855) Existing regulations require that water systems which are conducting water quality monitoring at a frequency greater than annually determine compliance with maximum contaminant levels for specific contaminants during normal operating conditions by a running annual average at any sampling point. (NAC 445A.454) **Section 2** of this regulation instead requires that such compliance be determined in accordance with certain provisions of federal law.

Before commencing a water project to treat or blend groundwater, existing regulations require a public water system to submit a preliminary engineering report to the Division of Environmental Protection of the State Department of Conservation and Natural Resources. (NAC 445A.54024, 445A.54026) **Sections 4 and 5** of this regulation exempt a noncommunity water system that is privately owned from this requirement.

Existing law provides that a public water system is not required to submit plans and specifications to the Division if an addition or alteration of the public water system already complies with standards previously approved by the Division or the appropriate district board of health. (NRS 445A.920) Existing regulations exempt such a public water system from the requirement to submit a preliminary engineering report. (NAC 445A.54026) **Section 5** removes this exemption.

Section 3 of this regulation applies the term “water project,” as defined in **section 1** of this regulation, to existing provisions that govern the treatment of water in public water systems.

Section 6 of this regulation revises a reference to a groundwater treatment or blending facility.

Existing regulations require the design of a groundwater treatment facility to be based on a pilot plant study with the exception that if a preliminary engineering report has been tested on water with similar characteristics, then a treatment technology used in the groundwater treatment facility may be approved without a pilot study. (NAC 445A.54034) **Section 7** of this regulation provides that if a preliminary engineering report was not required, a treatment technology may be approved without a pilot study if the treatment technology was recommended in an application for a water project to treat or blend groundwater. **Section 7** also requires a public water system to provide documentation that such a treatment technology complies with certain requirements for treating drinking water.

Existing regulations define the term “certified backflow prevention assembly tester” to include certain organizations that may certify a person to test assemblies for the prevention of backflow. (NAC 445A.6569) **Section 8** of this regulation adds the American Society of Sanitary Engineering as such an organization.

Existing regulations set forth certain requirements for the design and construction of a treatment facility, including a requirement that the treatment facility be designed to function safely and efficiently and comply with any requirements imposed by the Occupational Safety and Health Administration of the United States Department of Labor. (NAC 445A.66785, 445A.6681) **Sections 9 and 13** of this regulation revise and reorganize these requirements.

Existing regulations establish certain requirements for chemicals used for the treatment of water in a treatment facility. (NAC 445A.66805) **Section 10** of this regulation requires that a treatment facility include an area for secondary containment of chemicals.

Existing regulations require that certain storage tanks consist of certain materials. (NAC 445A.67075) **Section 11** of this regulation revises the material of which a storage tank may consist to include high density polyethylene that is determined to be compatible with drinking water. **Section 11** also updates the name of a publication that provides additional information for designing, installing, operating and maintaining reservoirs using flexible membrane materials.

Existing law authorizes the Commission to establish fees relating to public water systems. (NRS 445A.860) Existing regulations require the Division to charge and collect fees for certain services provided by the Division, including fees for reviewing an application for a permit to construct, modify or expand a treatment facility. (Section 1 of LCB File No. R155-22) **Section 12** of this regulation revises such fees by imposing a maximum fee of: (1) \$15,000 for reviewing plans to construct, renovate, modify or expand a treatment facility of a public water system that is a community water system or nontransient water system; and (2) \$9,000 for reviewing plans to construct, renovate, modify or expand a treatment facility of a public water system that is a transient water system.

Section 1. Chapter 445A of NAC is hereby amended by adding thereto a new section to read as follows:

“Water project” has the meaning ascribed to it in NAC 445A.66585.

Sec. 2. NAC 445A.454 is hereby amended to read as follows:

445A.454 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, 141.701 to 141.709, inclusive, and 141.851 to 141.858, 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.~~ *in accordance with 40 C.F.R. §§ 141.23(i) and 141.23(j), as adopted by reference in NAC 445A.4525.* 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 purposes of the monitoring program.* 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: $(\sum x_1 + x_2 + \dots + x_n)/n = \text{running annual average.}$)~~

Sec. 3. NAC 445A.495 is hereby amended to read as follows:

445A.495 As used in NAC 445A.495 to 445A.5405, inclusive, *and section 1 of this regulation*, unless the context otherwise requires:

1. The words and terms defined in NAC ~~445A.497~~ *445A.4957* to 445A.516, inclusive, *and section 1 of this regulation* 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.

Sec. 4. NAC 445A.54024 is hereby amended to read as follows:

445A.54024 A public water system which relies on a source of groundwater must, before commencing a water project to treat or blend groundwater:

1. ~~Submit~~ *Except as otherwise provided in subsection 3 of NAC 445A.54026, submit* to the Division or to the appropriate district board of health, pursuant to NAC 445A.54026, a preliminary engineering report for review and preliminary approval;
2. Upon preliminary approval of the preliminary engineering report, *if applicable*, submit to the Division or to the appropriate district board of health, with the appropriate fees, an application for approval of the water project to treat groundwater that complies with the requirements of NAC 445A.54028;
3. Obtain written approval from the Division or the appropriate district board of health for the water project to treat groundwater; and
4. Submit to the Division or the appropriate district board of health a copy of a manual of operations and maintenance for the facility to treat groundwater.

Sec. 5. NAC 445A.54026 is hereby amended to read as follows:

445A.54026 1. Except as otherwise provided in ~~NRS 445A.920~~ *subsection 3*, a public water system proposing to:

- (a) Construct a new facility for treatment or blending of groundwater; or
 - (b) Make additions to or modify an existing facility to treat or blend groundwater,
- ↪ must submit a preliminary engineering report to the Division or to the appropriate district board of health. The report must be reviewed by the Division or the appropriate district board of health before the supplier begins design of a facility to treat or blend groundwater.

2. A preliminary engineering report must:
 - (a) Describe the needs of the public water system, identify the purpose of the water project, analyze alternatives and propose a preferred course of action, from an engineering and economic perspective;

(b) If the project includes treatment to comply with the requirements of 40 C.F.R. § 141.403, as adopted by reference in NAC 445A.4525, include documentation indicating the manner in which the public water system will achieve a minimum of 99.99 percent or 4-log treatment of viruses pursuant to those requirements;

(c) Identify design alternatives that were considered and associated design parameters; and

(d) Identify a recommendation by an engineer for the final design.

3. The provisions of this section do not apply to a noncommunity water system that is privately owned.

Sec. 6. NAC 445A.54028 is hereby amended to read as follows:

445A.54028 An application for approval of a ~~groundwater treatment or blending facility~~ ***water project to treat or blend groundwater*** must contain:

1. Complete plans for the treatment or blending facility, including, without limitation, the details of any improvements to be made and all work to be performed on-site.
2. Complete specifications to supplement the plans for the facility.
3. A design report that:
 - (a) Describes the basis for the selection and design of the water project;
 - (b) Provides the criteria for design, data and other pertinent information defining the water project; and
 - (c) Establishes the adequacy of the proposed water project to meet the needs of the public water system.
4. Verification of the requirements for fire flow and fire demand.
5. Any other pertinent information required by the Division or the appropriate district board of health for review and approval of the water project application.

Sec. 7. NAC 445A.54034 is hereby amended to read as follows:

445A.54034 1. Except as otherwise provided in subsection 2, the design of a groundwater treatment facility must be based upon a pilot plant study. The pilot plant study must identify:

(a) Hydraulic characteristics such as the optimum process loading rate or the proper blending rates; and

(b) The unit process performance such as the optimum chemical feed and the most effective chemicals to use for adequate removal.

2. ~~If the treatment technology recommended in the preliminary engineering report required pursuant to NAC 445A.54024 or 445A.54026 has been tested on water with similar characteristics, the~~ A treatment technology *used in a groundwater treatment facility* may be approved without a pilot study ~~Documentation must be provided~~ if:

(a) The treatment technology has been tested on water with similar characteristics;

(b) The treatment technology was recommended in:

(1) A preliminary engineering report required pursuant to NAC 445A.54026; or

(2) If a preliminary engineering report was not required, an application for the approval of a water project to treat or blend groundwater that complies with the requirements of NAC 445A.54028; and

(c) The public water system provides documentation to verify that the treatment technology has been proven to treat the drinking water ~~to the minimum~~ *in compliance with the requirements set forth in NAC 445A.453 and 445A.455.*

Sec. 8. NAC 445A.6569 is hereby amended to read as follows:

445A.6569 “Certified backflow prevention assembly tester” means a person who is certified to test assemblies for the prevention of backflow by the California/Nevada section of the

American Water Works Association, the American Backflow Prevention Association, *American Society of Sanitary Engineering* or an equivalent organization approved by the Division.

Sec. 9. NAC 445A.66785 is hereby amended to read as follows:

445A.66785 A treatment facility must:

1. Be designed in such a manner as to ensure:

(a) The reliable operation of the facility; ~~and~~

(b) *That the facility functions safely and efficiently; and*

(c) That the public water system can meet its current demands for water.

2. Except as otherwise specifically allowed by the Division or the appropriate district board of health:

(a) Ensure that at any time the facility is the sole source of water for the public water system, the total capacity of the system is sufficient to meet the maximum day demand, peak hour demand and fire flow for the area of service of the system.

(b) Include at least two devices each for pumping, mixing chemicals, flocculation, sedimentation, filtration and disinfection.

(c) Be constructed in such a manner as to allow individual devices required pursuant to paragraph (b) to be taken out of service without disrupting the operation of the facility.

(d) Have drains and pumps of such a size as to allow the removal of water within a reasonable time.

(e) Have a standby source of power available to allow the operation of essential functions when the regular source of power fails.

(f) When filtration is used, discharge filtered water after backwashing into a system for waste.

(g) If the facility does not have a person present on a 24-hour basis, include a device that automatically shuts off the facility when the facility is not operating properly.

(h) Include eye wash stations which comply with any applicable requirements imposed by the Occupational Safety and Health Administration of the United States Department of Labor.

Sec. 10. NAC 445A.66805 is hereby amended to read as follows:

445A.66805 In a treatment facility:

1. Each chemical used for the treatment of water must be determined to be compatible with drinking water.

2. Containers for the shipping of chemicals must be labeled in such a manner as to include:

(a) The name, purity, concentration and date of manufacture of each chemical.

(b) The name and address of the supplier of the chemical.

(c) Any other information required by any applicable state or federal statutes or regulations for occupational safety and health.

3. Storage space for chemicals must:

(a) Be adequate for the storage of a sufficient supply of chemicals. Unless the Division or the appropriate district board of health determines that the availability of alternative supplies of chemicals warrants otherwise, a supplier of water shall maintain at least a 30-day supply of chemicals.

(b) Be adequate for the convenient and efficient handling and delivery of chemicals.

(c) Maintain conditions of dry storage.

(d) Provide adequate ventilation.

(e) Include an area for secondary containment of chemicals.

Sec. 11. NAC 445A.67075 is hereby amended to read as follows:

445A.67075 1. Except as otherwise provided in subsection 3, storage tanks must:

(a) Consist of welded steel and comply with *American Water Works Association Standard D100*;

(b) Consist of factory-coated, bolted steel and comply with *American Water Works Association Standard D103*;

(c) Consist of reinforced concrete of portland cement;

(d) Consist of prestressed concrete and comply with *American Water Works Association Standard D110*; ~~or~~

(e) Consist of fiberglass-reinforced plastic and comply with *American Water Works Association Standard D120* ~~or~~; *or*

(f) Consist of high density polyethylene determined to be compatible with drinking water.

2. Reservoirs with floating covers may be used for the storage of water only if approved by the Division or the appropriate district board of health after evaluation on a case-by-case basis. If so approved, such a reservoir must have a lining and cover composed of a flexible membrane which conforms to the requirements of *American Water Works Association Standard D130*. Additional information for designing, installing, operating and maintaining reservoirs using flexible-membrane materials is outlined in *Manual M25* ~~Flexible Membrane~~ *Geomembrane Floating Covers and Linings Liners for Potable-Water Reservoirs, third edition, Fourth Edition*, of the American Water Works Association. This document is available at a cost of ~~52~~ 69 for members and ~~83~~ 99 for nonmembers from the American Water Works Association, 6666 West Quincy Avenue, Denver, Colorado 80235, by toll-free telephone at (800) 926-7337, or at the Internet address ~~http://www.awwa.org/store.aspx~~ <https://store.awwa.org>.

3. The Division or the appropriate district board of health may authorize a public water system to use a storage tank composed of galvanized steel if:

(a) The plans and specifications for the tank are submitted to the Division or the appropriate district board of health.

(b) The tank is assembled and hot-dip galvanized, and any other coating is applied, at a factory. The tank must not be modified at another location unless the modification is inspected by an engineer and approved by the Division or the appropriate district board of health.

(c) Any material used to coat the tank is determined to be compatible with drinking water. Before being introduced into service, the tank must be sampled for the presence of volatile organic chemicals.

(d) An analysis of the quality of water in the tank demonstrates that the stored water will not corrode the tank and the only material used to coat the tank is a galvanized coating.

(e) The construction of the tank complies with *American Water Works Association Standard D103*.

4. This section does not:

(a) Prohibit the Division or the appropriate district board of health from:

(1) Disallowing the use of galvanized storage tanks in a public water system; or

(2) Imposing more stringent requirement for the construction of a galvanized storage tank.

(b) Apply to the use of galvanized tanks for any purpose other than the storage of water for a public water system.

5. All standards referenced in this section are adopted by reference in NAC 445A.6663.

Sec. 12. Section 1 of LCB File No. R155-22 is hereby amended to read as follows:

1. Except as otherwise provided in subsections 3 and 4, the Division shall charge and collect fees for services, as follows:

(a) For reviewing an application for a permit to construct, renovate, modify or expand a public water system:

(1) If the public water system is a community water system or a nontransient water system, an application fee of \$200, and:

For reviewing an engineering report or preliminary engineering report.....	\$900
For reviewing plans to construct, renovate, modify or expand a disinfection facility	600
For reviewing plans to construct, renovate, modify or expand a distribution system that is less than 1,000 linear feet.....	600
For reviewing plans to construct, renovate, modify or expand a distribution system that is at least 1,000 but not more than 10,000 linear feet	800
For reviewing plans to construct, renovate, modify or expand a distribution system that is more than 10,000 linear feet.....	900
For reviewing plans to construct, renovate, modify or expand a pumping facility.....	1,000
For reviewing plans to construct, renovate, modify or expand a spring facility.....	800
For reviewing plans to construct, renovate, modify or expand a storage facility.....	900

For reviewing plans to construct, renovate, modify or expand a treatment facility.....0.1 percent of the capital cost of the treatment facility but not less than \$40 *and not more than \$15,000*

For reviewing plans to construct, renovate, modify or expand a well facility.....1,000

For reviewing plans to operate a community or nontransient water system submitted pursuant to NAC 445A.5921800

(2) If the public water system is a transient water system, an application fee of \$100, and:

For reviewing an engineering report or preliminary engineering report.....\$500

For reviewing plans to construct, renovate, modify or expand a disinfection facility.....400

For reviewing plans to construct, renovate, modify or expand a distribution system that is less than 1,000 linear feet.....400

For reviewing plans to construct, renovate, modify or expand a distribution system that is at least 1,000 but not more than 5,000 linear feet500

For reviewing plans to construct, renovate, modify or expand a distribution system that is more than 5,000 linear feet.....	600
For reviewing plans to construct, renovate, modify or expand a pumping facility.....	600
For reviewing plans to construct, renovate, modify or expand a spring facility.....	500
For reviewing plans to construct, renovate, modify or expand a storage facility.....	500
For reviewing plans to construct, renovate, modify or expand a treatment facility.....	0.1 percent of the capital cost of the treatment facility but not less than \$40 <i>and not more than \$9,000</i>
For reviewing plans to construct, renovate, modify or expand a well facility.....	600

(b) For issuing an annual permit to operate a public water system:

(1) If the system is a community water system:

Number of connections for service to customers

Number of connections for service to customers

25 or less	\$369
26-3,000.....	369
	Plus 75 cents for each connection for service between 26 and 3,000 connections.
3,001-10,000.....	4,100
	Plus 60 cents for each connection for service between 3,001 and 10,000 connections.
10,001-50,000.....	10,988
	Plus 25 cents for each connection for service between 10,001 and 50,000 connections.
50,001-100,000.....	27,388
	Plus 10 cents for each connection for service between 50,001 and 100,000 connections.
over 100,000.....	35,588

(2) If the system is not a community water system and regularly serves at least 25 of the same persons for more than 6 months per year:

For the calendar year beginning January 1, 2023.....	\$270
For the calendar year beginning January 1, 2024.....	320
For the calendar year beginning January 1, 2025.....	369

(3) If the system is not a community water system or a public water system that serves at least 25 of the same persons for more than 6 months per year:

For the calendar year beginning January 1, 2023.....	\$120
For the calendar year beginning January 1, 2024.....	140
For the calendar year beginning January 1, 2025.....	164

(c) Except as otherwise provided in subsection 2, for issuing an annual permit to operate a treatment facility based on the capacity of the treatment facility:

Less than 500,000 gallons per day	\$234
At least 500,000 gallons per day but less than 1 million gallons per day	390
At least 1 million gallons per day but less than 5 million gallons per day.....	2,340
At least 5 million gallons per day but less than 10 million gallons per day.....	3,122
At least 10 million gallons per day but less than 50 million gallons per day.....	4,683
At least 50 million gallons per day but less than 100 million gallons per day	6,244
At least 100 million gallons per day or more	11,708

2. An applicant for a permit to operate a treatment facility that only provides treatment related to chlorination is not required to pay the fees set forth in paragraph (c) of subsection 1.

3. For the calendar year beginning on January 1, 2024, and for each calendar year thereafter, the Director of the State Department of Conservation and Natural Resources shall increase each

fee set forth in this section, except the fees set forth in subparagraphs (2) and (3) of paragraph (b) of subsection 1, by an amount that is equal to 3 percent of the fee for the immediately preceding calendar year. The Director may, during any calendar year, suspend an increase in a fee specified in this subsection.

4. For the calendar year beginning on January 1, 2026, and for each calendar year thereafter, the Director shall increase each fee set forth in subparagraphs (2) and (3) of paragraph (b) of subsection 1 by an amount that is equal to 3 percent of the fee for the immediately preceding calendar year. The Director may, during any calendar year, suspend an increase in a fee specified in this subsection.

5. The Director shall post on the Internet website of the Division the fees required pursuant to this section that are applicable for each calendar year.

6. As used in this section:

(a) “Capital cost of the treatment facility” means the cost estimated by an engineer to construct, renovate, modify or expand the treatment facility.

(b) “Community water system” means a public water system which:

- (1) Has at least 15 service connections used by residents for an entire year; or
- (2) Regularly serves at least 25 residents for an entire year.

Sec. 13. NAC 445A.6681 is hereby repealed.

TEXT OF REPEALED SECTION

445A.6681 Treatment facilities: Safety and efficiency. (NRS 445A.860) A treatment facility must be designed and constructed in such a manner as to:

1. Function safely and efficiently.
2. Comply with any requirements imposed by:
 - (a) The federal Occupational Safety and Health Administration.
 - (b) The Division of Industrial Relations of the Department of Business and Industry.
 - (c) The fire authority.