

**ADOPTED REGULATION OF THE
STATE BOARD OF HEALTH**

LCB File No. R118-99

§§1 to 5, inclusive, and 7 effective February 10, 2000
§6 effective January 1, 2001, under the circumstances set forth in §7

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

AUTHORITY: §§1, 4, 6 and 7, NRS 439.200 and 445A.860; §2, NRS 439.200, 445A.055, 445A.855, 445A.860 and 445A.863; §3, NRS 439.200, 445A.855 and 445A.860; §5, NRS 439.200, 445A.055 and 445A.860.

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

“Water Fluoridation: A Manual for Engineers and Technicians,” 1986 edition, as published by the Centers for Disease Control and Prevention of the United States Department of Health and Human Services, is hereby adopted by reference. This publication is available, free of charge, by mail from the Centers for Disease Control and Prevention, Division of Oral Health, Program Services Branch, 4770 Buford Highway, Mail Stop F10, Atlanta, Georgia 30341, or by telephone at (770) 488-6056.

Sec. 2. NAC 445A.450 is hereby amended to read as follows:

445A.450 As used in NAC 445A.450 to 445A.492, inclusive, unless the context otherwise requires:

1. “Health authority” means the officers and agents of the health division or the officers and agents of the local boards of health.
2. “Health division” means the health division of the department of human resources.

3. “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.

4. “Properly certified laboratory” means a laboratory, including a mobile laboratory, that is certified as acceptable by the Nevada laboratory certification officer pursuant to a certification program approved by the Environmental Protection Agency and the regulations and procedures adopted by the state board of health.

5. *“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.*

6. *“Water authority” has the meaning ascribed to it in NRS 377B.040.*

7. The words and terms defined in 40 C.F.R. § 141.2 have the meanings ascribed to them in that section.

Sec. 3. NAC 445A.455 is hereby amended to read as follows:

445A.455 1. Whenever any of the following chemical substances, as measured at representative points in the distribution system, is present in a public water supply in excess of the listed levels, and the health authority determines that there is another more suitable supply of water which is economically feasible, available in a sufficient quantity, and of a significantly higher quality, the supplier of water shall give notice to the public:

Substance	Level, Milligrams Per Liter
Chloride.....	250.0
Color	15.0 color units
Copper.....	1.0
Foaming Agents	0.5
Iron.....	0.3
Magnesium.....	125.0
Manganese	0.05
Odor	3.0 threshold odor number
pH.....	6.5-8.5
Sulfate	250.0
TDS (total dissolved solids dried at 180°C)	500.0
Zinc	5.0

2. The following chemical substances, as measured at representative points in the distribution system, must not be present in a public water supply in excess of the listed levels:

Level,
Milligrams

Substance	Per Liter
Chloride.....	400.0
Iron.....	0.6
Magnesium.....	150.0
Manganese	0.1
Sulfate	500.0
TDS (total dissolved solids dried at 180°C)	1000.0

3. ~~The~~ *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.

4. If a public water system exceeds one of the standards set by subsection 2 or 3 or the state board of health grants a variance from the requirement concerning that contaminant level, the supplier of water shall give notice to the public.

5. The notices required by subsections 1 and 4 must be:

(a) Published in a newspaper of general circulation in the area served by the system not more than 30 days after the standard is exceeded;

(b) Delivered personally or by mail to each person served by the system not more than 45 days after the standard is exceeded; and

(c) Published and delivered annually thereafter as provided in this section if the standard continues to be exceeded.

Sec. 4. NAC 445A.66615 is hereby amended to read as follows:

445A.66615 The purposes of NAC 445A.65505 to 445A.6731, inclusive, *and section 1 of this regulation* are to:

1. Provide the public with reasonable assurance that its water is satisfactory for consumption and for ablutionary and culinary purposes;
2. ~~{Project}~~ *Protect* the public health and welfare by ensuring that water is developed, treated, stored and distributed in a safe manner;
3. Ensure a reliable supply of water;
4. Prevent the potential pollution or contamination of a public water system as a result of backpressure or backsiphonage;
5. Provide for the use of components in a public water system that are designed and constructed in accordance with accepted engineering principles, standards and practices; and
6. ~~{Project}~~ *Protect* the public investment in its infrastructure for the provision of water by public utilities.

Sec. 5. NAC 445A.6682 is hereby amended to read as follows:

445A.6682 1. ~~{All}~~ *On or before March 1, 2000, all water delivered for human consumption in a county whose population is 400,000 or more by a:*

(a) Public water system that serves a population of 100,000 or more; or

(b) Water authority,

must be fluoridated.

2. *In a county whose population is less than 400,000, all* requests that fluoride be added to the water supply for the reduction of the incidence of dental caries must be referred to the health authority, who shall send the request to the board of health for consideration. ~~{The public water~~

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~~system must supply water meeting the standards of the board for fluoridation at a maximum of 1.5 ppm.~~

~~—2.]~~ In addition to any approval required pursuant to NRS 445A.025 to 445A.050, inclusive, the following must agree to *a request to* add fluoride to the water supply:

- (a) The public water system;
- (b) The county board of health;
- (c) The state board of health;
- (d) The local dental and medical society, or if there is none, the state dental and medical society; and
- (e) The local governing authority.

FLUSH *If such approval is granted, the fluoridation of the water must be provided in accordance with the provisions of this section.*

~~3. [The application of fluoride must be made through accurate feeding equipment. Either gravimetric or volumetric dry feed equipment or positive displacement liquid feed equipment with an accuracy within 5 percent is required. Special precaution must be taken to protect the operators from inhaling fluoride dust when charging the hoppers of the feeders. Each operator who handles fluoride must have his own toxic dust respirator to be used only when handling this chemical. When liquid feed equipment is used, at least two solution tanks must be available for the preparation and storage of the fluoride solution.~~

~~—4.—~~ The feeding equipment must be controlled in such a manner that fluoride is added to the public water system only when its facilities and equipment for supplying water are functioning properly. Electrical power to the feeding equipment must be wired in conjunction with the pumping equipment of the public water system in such a manner that fluoride cannot be

~~introduced into the supply of water when the water is not flowing. Pumps for feeding chemicals must be equipped with flow detectors which ensure that the injection of chemicals stops when the well or booster pumps stop.~~

~~—5.— The supplier of water shall:~~

~~—(a) Maintain a kit which is approved by the health authority for testing the level of fluoride in water, test the level of fluoride entering the public water system daily and maintain accurate records of the daily tests.~~

~~—(b) Follow any written instructions of the health authority for the sampling of water to which fluoride has been added. Samples must be taken from one or more points in the distribution system as determined by the health authority. The frequency of sampling must be stated in the written instructions. Samples must be tested by the health authority for control purposes. Tests for the purity of the fluoride used in fluoridation must be determined as necessary, and these tests must be by the methods approved in Standard Methods for the Examination of Water and~~

~~Wastewater.] *The state board of health will exempt a public water system or water authority from the requirement of fluoridation of the ground water in its wells if the public water system or water authority submits documentation to the state board of health that demonstrates that its system for the production of ground water:*~~

~~*(a) Produces less than 15 percent of the total average annual water production of the public water system or water authority for the years in which drought conditions are not prevalent; and*~~

~~*(b) Is part of a combined regional and local system for the distribution of water that is served by a fluoridated source.*~~

4. A public water system or water authority that is required to fluoridate all water delivered for human consumption pursuant to subsection 1 shall:

(a) Cease fluoridation of that water during an emergency related to fluoridation of the water;

(b) Submit to the health division within 30 days after the emergency occurs, a written notice describing the emergency and the length of time during which the public water system or water authority ceased fluoridation of the water; and

(c) Resume fluoridation of the water when the emergency no longer exists.

5. A public water system or water authority that is required to fluoridate all water delivered for human consumption pursuant to subsection 1 may cease fluoridation of that water during a period of routine maintenance if the public water system or water authority:

(a) Submits to the health division within 30 days before the period of routine maintenance, a written notice describing the maintenance and the length of time during which the public water system or water authority will cease fluoridation of the water; and

(b) Resumes fluoridation of the water when the maintenance is completed.

6. In addition to meeting the standards set forth in NAC 445A.450 to 445A.492, inclusive, a public water system or water authority shall maintain in all water it delivers for human consumption:

(a) A minimum concentration of fluoride that is not less than 0.7 ppm; and

(b) A maximum concentration of fluoride that does not exceed 1.2 ppm.

7. The introduction of a chemical for fluoridation into the facilities of a public water system or water authority must be made:

(a) Through accurate feeding equipment; and

(b) In accordance with “Water Fluoridation: A Manual for Engineers and Technicians.”

8. The feeding equipment must be maintained in accordance with “Water Fluoridation: A Manual for Engineers and Technicians.”

9. The feeding equipment must be controlled in such a manner that fluoride is added to the facilities of the public water system or water authority only when those facilities and the related equipment for supplying water are functioning properly. Electrical power to the feeding equipment must be wired in conjunction with the pumping or flow control equipment of the public water system or water authority in such a manner that fluoride cannot be introduced into the supply of water when the water is not flowing. Pumps for feeding chemicals must be equipped with flow detectors which ensure that the injection of chemicals stops when the well or booster pumps stop.

10. Either gravimetric or volumetric dry-feed equipment or positive displacement liquid-feed equipment with an accuracy within 5 percent is required. When liquid-feed equipment is used, at least two solution tanks must be available for the preparation and storage of the fluoride solution.

11. A person who handles chemicals that are added to the water in the fluoridation process shall comply with the requirements relating to protective equipment set forth in section 5.3.4 of the “Recommended Standards for Water Works.”

12. Each public water system and water authority shall:

(a) Maintain a kit which is approved by the health authority for testing the concentration of fluoride in water.

(b) Adjust the concentration of fluoride if the natural concentration of fluoride in the water delivered for human consumption by the public water system or water authority is not within the permissible concentrations of fluoride set forth in subsection 6.

(c) Take samples from one or more points in the distribution system that are approved by the health authority.

(d) Test or monitor the concentration of fluoride daily after its introduction into the facilities of the public water system or water authority and maintain accurate records of the results of that testing or monitoring.

(e) Report the results of the daily testing or monitoring to the health authority at least monthly and in accordance with any written instructions prescribed by the health authority.

(f) Not less than once a week, have a properly certified laboratory verify the results of the testing or monitoring for at least 1 day using the methods approved in the “Standard Methods for the Examination of Water and Wastewater.” The health authority may take samples from points in the distribution system approved by it pursuant to paragraph (c) to test the samples for control purposes.

(g) Follow any written instructions of the health authority for the sampling of water to which fluoride has been added.

(h) Keep a record or copy of the results of the daily testing or monitoring on the premises of its facility or at a convenient location near the premises for the period specified in 40 C.F.R. § 141.33. The record or copy must be available for inspection by the health authority upon request.

(i) In the fluoridation of water, only use fluoride that meets the requirements set forth in standards B701-94, B702-94 and B703-94 of the “American Water Works Association Standards.”

(j) Notify the health division as soon as possible, but not later than the end of the next business day, if:

(1) The concentration of fluoride in the water that is delivered for human consumption does not meet the levels of concentration required by subsection 6; or

(2) Any other event occurs that may affect the ability of the public water system or water authority to produce safe, potable water.

(k) Comply with the provisions of:

(1) This section;

(2) The “Recommended Standards for Water Works”;

(3) The “Standard Methods for the Examination of Water and Wastewater”;

(4) “Water Fluoridation: A Manual for Engineers and Technicians”; and

(5) Standards B701-94, B702-94 and B703-94 of the “American Water Works Association Standards.”

FLUSH *If there is a conflict between any of the provisions described in this paragraph, the most stringent of those provisions prevails.*

13. As used in this section:

(a) “Health authority” has the meaning ascribed to it in NAC 445A.66055, except that with regard to a county whose population is 400,000 or more, “health authority” means the officers and agents of the health division.

(b) “Water authority” has the meaning ascribed to it in NRS 377B.040.

Sec. 6. NAC 445A.6682 is hereby amended to read as follows:

445A.6682 1. ~~{On or before March 1, 2000, all water delivered for human consumption in a county whose population is 400,000 or more by a:~~

~~—(a) Public water system that serves a population of 100,000 or more; or~~

~~—(b) Water authority;~~

~~must be fluoridated.~~

~~—2.— In a county whose population is less than 400,000, all~~ **All** requests that fluoride be added to the water supply for the reduction of the incidence of dental caries must be referred to the health authority, who shall send the request to the board of health for consideration. In addition to any approval required pursuant to NRS 445A.025 to 445A.050, inclusive, the following must agree to a request to add fluoride to the water supply:

(a) The public water system;

(b) The county board of health;

(c) The state board of health;

(d) The local dental and medical society, or if there is none, the state dental and medical society; and

(e) The local governing authority.

If such approval is granted, the fluoridation of the water must be provided in accordance with the provisions of this section.

~~{3.— The state board of health will exempt a public water system or water authority from the requirement of fluoridation of the ground water in its wells if the public water system or water authority submits documentation to the state board of health that demonstrates that its system for the production of ground water:~~

~~—(a) Produces less than 15 percent of the total average annual water production of the public water system or water authority for the years in which drought conditions are not prevalent; and~~
~~—(b) Is part of a combined regional and local system for the distribution of water that is served by a fluoridated source.~~

~~—4.]~~ 2. A public water system ~~[or water authority that is required to fluoridate all water delivered]~~ *that delivers fluoridated water* for human consumption ~~[pursuant to subsection 1]~~ shall:

~~—(a) Cease]~~ *shall cease* fluoridation of that water during an emergency related to fluoridation of the water ~~;~~

~~—(b) Submit]~~ *and submit* to the health division within 30 days after the emergency occurs ~~;~~ a written notice describing the emergency and the length of time during which the public water system ~~[or water authority]~~ ceased fluoridation of the water . ~~;~~ and

~~—(c) Resume fluoridation of the water when the emergency no longer exists.~~

~~—5.— A public water system or water authority that is required to fluoridate all water delivered for human consumption pursuant to subsection 1 may cease fluoridation of that water during a period of routine maintenance if the public water system or water authority:~~

~~—(a) Submits to the health division within 30 days before the period of routine maintenance, a written notice describing the maintenance and the length of time during which the public water system or water authority will cease fluoridation of the water; and~~

~~—(b) Resumes fluoridation of the water when the maintenance is completed.~~

~~—6.]~~ 3. In addition to meeting the standards set forth in NAC 445A.450 to 445A.492, inclusive, a public water system ~~[or water authority]~~ shall maintain in all water it delivers for human consumption:

- (a) A minimum concentration of fluoride that is not less than 0.7 ppm; and
- (b) A maximum concentration of fluoride that does not exceed 1.2 ppm.

~~[7.]~~ 4. The introduction of a chemical for fluoridation into the facilities of a public water system ~~[or water authority]~~ must be made:

- (a) Through accurate feeding equipment; and
- (b) In accordance with “Water Fluoridation: A Manual for Engineers and Technicians.”

~~[8.]~~ 5. The feeding equipment must be maintained in accordance with “Water Fluoridation: A Manual for Engineers and Technicians.”

~~[9.]~~ 6. The feeding equipment must be controlled in such a manner that fluoride is added to the facilities of the public water system ~~[or water authority]~~ only when those facilities and the related equipment for supplying water are functioning properly. Electrical power to the feeding equipment must be wired in conjunction with the pumping or flow control equipment of the public water system ~~[or water authority]~~ in such a manner that fluoride cannot be introduced into the supply of water when the water is not flowing. Pumps for feeding chemicals must be equipped with flow detectors which ensure that the injection of chemicals stops when the well or booster pumps stop.

~~[10.]~~ 7. Either gravimetric or volumetric dry-feed equipment or positive displacement liquid-feed equipment with an accuracy within 5 percent is required. When liquid-feed equipment is used, at least two solution tanks must be available for the preparation and storage of the fluoride solution.

~~[11.]~~ 8. A person who handles chemicals that are added to the water in the fluoridation process shall comply with the requirements relating to protective equipment set forth in section 5.3.4 of the “Recommended Standards for Water Works.”

~~[12.]~~ 9. Each public water system ~~{and water authority}~~ shall:

- (a) Maintain a kit which is approved by the health authority for testing the concentration of fluoride in water.
- (b) Adjust the concentration of fluoride if the natural concentration of fluoride in the water delivered for human consumption by the public water system ~~{or water authority}~~ is not within the permissible concentrations of fluoride set forth in subsection ~~{6.}~~ 3.
- (c) Take samples from one or more points in the distribution system that are approved by the health authority.
- (d) Test or monitor the concentration of fluoride daily after its introduction into the facilities of the public water system ~~{or water authority}~~ and maintain accurate records of the results of that testing or monitoring.
- (e) Report the results of the daily testing or monitoring to the health authority at least monthly and in accordance with any written instructions prescribed by the health authority.
- (f) Not less than once a week, have a properly certified laboratory verify the results of the testing or monitoring for at least 1 day using the methods approved in the “Standard Methods for the Examination of Water and Wastewater.” The health authority may take samples from points in the distribution system approved by it pursuant to paragraph (c) to test the samples for control purposes.
- (g) Follow any written instructions of the health authority for the sampling of water to which fluoride has been added.
- (h) Keep a record or copy of the results of the daily testing or monitoring on the premises of its facility or at a convenient location near the premises for the period specified in 40 C.F.R. § 141.33. The record or copy must be available for inspection by the health authority upon request.

(i) In the fluoridation of water, only use fluoride that meets the requirements set forth in standards B701-94, B702-94 and B703-94 of the “American Water Works Association Standards.”

(j) Notify the health division as soon as possible, but not later than the end of the next business day, if:

(1) The concentration of fluoride in the water that is delivered for human consumption does not meet the levels of concentration required by subsection ~~[6;] 3~~; or

(2) Any other event occurs that may affect the ability of the public water system ~~[or water authority]~~ to produce safe, potable water.

(k) Comply with the provisions of:

(1) This section;

(2) The “Recommended Standards for Water Works”;

(3) The “Standard Methods for the Examination of Water and Wastewater”;

(4) “Water Fluoridation: A Manual for Engineers and Technicians”; and

(5) Standards B701-94, B702-94 and B703-94 of the “American Water Works Association Standards.”

FLUSH If there is a conflict between any of the provisions described in this paragraph, the most stringent of those provisions prevails.

~~[13.—As used in this section:~~

~~—(a) “Health authority” has the meaning ascribed to it in NAC 445A.66055, except that with regard to a county whose population is 400,000 or more, “health authority” means the officers and agents of the health division.~~

~~—(b) “Water authority” has the meaning ascribed to it in NRS 377B.040.]~~

Sec. 7. 1. This section and sections 1 to 5, inclusive, of this regulation become effective upon filing with the secretary of state.

2. Sections 2 and 5 of this regulation expire by limitation on January 1, 2001, if the provisions of Assembly Bill No. 284 of the 1999 Legislative Session, as amended by Assembly Bill No. 689 of the 1999 Legislative Session, expire by limitation on that date.

3. Section 6 of this regulation becomes effective on January 1, 2001, only if the provisions of Assembly Bill No. 284 of the 1999 Legislative Session, as amended by Assembly Bill No. 689 of the 1999 Legislative Session, expire by limitation on that date.