



Queensland

# Water Fluoridation Regulation 2020

## Subordinate Legislation 2020 No. 17

made under the

*Water Fluoridation Act 2008*

## Contents

---

		Page
<b>Part 1</b>	<b>Preliminary</b>	
1	Short title .....	3
2	Definitions .....	3
<b>Part 2</b>	<b>Fluoride forms and concentrations</b>	
3	Forms of fluoride—Act, s 12 .....	3
4	Fluoride concentrations—Act, s 12 .....	3
<b>Part 3</b>	<b>Adding fluoride compounds</b>	
<b>Division 1</b>	<b>Preliminary</b>	
5	Application of part .....	4
<b>Division 2</b>	<b>Quality of fluoride compounds</b>	
6	Analysis certificates for supplied fluoride compounds .....	5
7	Impurities affecting public health .....	5
<b>Division 3</b>	<b>Automatic fluoride dosing equipment and operators</b>	
8	Using automatic fluoride dosing equipment for fluoride compounds	6
9	Notice if automatic fluoride dosing equipment not in operation . .	6
10	Notice if automatic fluoride dosing equipment resumes operation	6
11	Keeping fluoride compounds and equipment .....	7
12	Qualified persons to operate automatic fluoride dosing equipment	7
<b>Part 4</b>	<b>Adding naturally occurring fluoride</b>	

Contents

---

<b>Division 1</b>	<b>Preliminary</b>	
13	Application of part . . . . .	7
<b>Division 2</b>	<b>Water blending equipment and operators</b>	
14	Using water blending equipment for naturally occurring fluoride .	8
15	Notice if water blending equipment not in operation . . . . .	8
16	Notice if water blending equipment resumes operation . . . . .	8
17	Qualified persons to operate water blending equipment . . . . .	9
<b>Part 5</b>	<b>Water analyses, record keeping and reporting</b>	
18	Purpose of part . . . . .	9
19	Prescribed testing by water suppliers . . . . .	9
20	Monthly laboratory testing . . . . .	9
21	Chief executive may require additional test . . . . .	10
22	Daily recording of fluoride compound information . . . . .	10
23	Reporting fluoridation information . . . . .	11
<b>Part 6</b>	<b>Miscellaneous</b>	
24	Supporting information for fluoridation notice . . . . .	12
25	Prescribed entity—Act, s 73 . . . . .	13
26	Forms . . . . .	13
<b>Part 7</b>	<b>Repeal</b>	
27	Repeal . . . . .	13
<b>Schedule 1</b>	<b>Fluoride concentrations for local government areas</b> . . . . .	14
<b>Schedule 2</b>	<b>Impurities affecting public health</b> . . . . .	18
<b>Schedule 3</b>	<b>Dictionary</b> . . . . .	19

---

## Part 1 Preliminary

### 1 Short title

This regulation may be cited as the *Water Fluoridation Regulation 2020*.

### 2 Definitions

The dictionary in schedule 3 defines particular words used in this regulation.

## Part 2 Fluoride forms and concentrations

### 3 Forms of fluoride—Act, s 12

- (1) For section 12(a) of the Act, the following forms of fluoride are prescribed—
  - (a) fluorosilicic acid ( $\text{H}_2\text{SiF}_6$ );
  - (b) sodium fluoride ( $\text{NaF}$ );
  - (c) sodium fluorosilicate ( $\text{Na}_2\text{SiF}_6$ );
  - (d) naturally occurring fluoride contained in water.
- (2) A form of fluoride mentioned in subsection (1)(a), (b) or (c) is a *fluoride compound*.
- (3) A form of fluoride mentioned in subsection (1)(d) is *naturally occurring fluoride*.

### 4 Fluoride concentrations—Act, s 12

- (1) For section 12(b) of the Act, the following fluoride concentrations must be maintained in the public potable water supply by the public potable water supplier—

[s 5]

---

- (a) if the water supply is located in a local government area listed in schedule 1, part 1—0.6mg/L;
  - (b) if the water supply is located in a local government area listed in schedule 1, part 2—0.7mg/L;
  - (c) if the water supply is located in a local government area listed in schedule 1, part 3—0.8mg/L.
- (2) The fluoride concentration mentioned in subsection (1) for the public potable water supply includes the concentration of naturally occurring fluoride in the water supply.
  - (3) The public potable water supplier complies with subsection (1) if the measured fluoride concentration for the public potable water supply for each day, averaged over a quarter, is within 0.1mg/L of the fluoride concentration mentioned in subsection (1) for the water supply.
  - (4) In this section—

*measured fluoride concentration*, for a public potable water supply, means the fluoride concentration measured by a prescribed test of fluoridated water from the water supply.

## **Part 3                      Adding fluoride compounds**

### **Division 1                Preliminary**

#### **5                      Application of part**

This part applies in relation to a public potable water supplier adding a fluoride compound to a public potable water supply.

---

## **Division 2                      Quality of fluoride compounds**

### **6                      Analysis certificates for supplied fluoride compounds**

- (1) This section applies if a quantity of the fluoride compound to be added to the public potable water supply is not accompanied by a batch analysis certificate issued by an accredited laboratory.
- (2) The public potable water supplier must ask the manufacturer, importer or supplier of the fluoride compound for a copy of a batch analysis certificate for the fluoride compound issued by an accredited laboratory.
- (3) If the manufacturer, importer or supplier of the fluoride compound does not comply with the request, the public potable water supplier must—
  - (a) send a sample of the fluoride compound to an accredited laboratory for analysis to determine the concentrations of any impurities in the fluoride compound; and
  - (b) obtain the results of the analysis.

### **7                      Impurities affecting public health**

The public potable water supplier must not add the fluoride compound to the public potable water supply if a batch analysis certificate for a sample of the fluoride compound indicates—

- (a) an impurity of a type mentioned in column 1 of the table in schedule 2 exists in the fluoride compound; and
- (b) the concentration of the impurity exceeds the stated concentration for the fluoride compound mentioned in column 2, 3 or 4 of the table in schedule 2 opposite the type of impurity.

[s 8]

---

## **Division 3                      Automatic fluoride dosing equipment and operators**

### **8                      Using automatic fluoride dosing equipment for fluoride compounds**

The public potable water supplier must use automatic fluoride dosing equipment that—

- (a) has the rate of feed of the fluoride compound paced to the flow of water into the public potable water supply; and
- (b) has at least 2 devices that independently monitor the flow of the water, at least 1 of which measures the rate of flow of the water; and
- (c) is designed in a way that ensures if part of the equipment fails, the fluoride compound is not added to the water supply.

### **9                      Notice if automatic fluoride dosing equipment not in operation**

- (1) The public potable water supplier must give the chief executive a notice if its automatic fluoride dosing equipment has not been in operation for a continuous period of 14 days.
- (2) The notice must be given in the approved form within 1 business day after the end of the period.

### **10                      Notice if automatic fluoride dosing equipment resumes operation**

- (1) The public potable water supplier must give the chief executive a notice if its automatic fluoride dosing equipment resumes operation after it has not been in operation for a continuous period of 14 days or longer.
- (2) The notice must be given in the approved form within 5 business days after the day the automatic fluoride dosing equipment resumes operation.

## **11 Keeping fluoride compounds and equipment**

- (1) The public potable water supplier must keep its automatic fluoride dosing equipment in a building or room separated from other water treatment equipment.
- (2) The public potable water supplier must keep its fluoride compound—
  - (a) in a weatherproof building; and
  - (b) in a building or room separated from other substances used for water treatment.

## **12 Qualified persons to operate automatic fluoride dosing equipment**

The public potable water supplier must ensure each person employed to operate its automatic fluoride dosing equipment is appropriately qualified.

# **Part 4 Adding naturally occurring fluoride**

## **Division 1 Preliminary**

### **13 Application of part**

This part applies in relation to a public potable water supplier adding naturally occurring fluoride to a public potable water supply.

[s 14]

---

## **Division 2                      Water blending equipment and operators**

### **14            Using water blending equipment for naturally occurring fluoride**

The public potable water supplier must use water blending equipment that—

- (a) has the rate of feed of naturally occurring fluoride paced to the flow of any other water used to dilute the naturally occurring fluoride; and
- (b) has a device designed to measure the rate of flow of the water; and
- (c) is designed in a way that ensures if part of the equipment fails, naturally occurring fluoride is not added to the public potable water supply.

### **15            Notice if water blending equipment not in operation**

- (1) The public potable water supplier must give the chief executive a notice if its water blending equipment has not been in operation for a continuous period of 14 days.
- (2) The notice must be given in the approved form within 1 business day after the end of the period.

### **16            Notice if water blending equipment resumes operation**

- (1) The public potable water supplier must give the chief executive a notice if its water blending equipment resumes operation after it has not been in operation for a continuous period of 14 days or longer.
- (2) The notice must be given in the approved form within 5 business days after the day the water blending equipment resumes operation.

---

**17 Qualified persons to operate water blending equipment**

The public potable water supplier must ensure each person employed to operate its water blending equipment is appropriately qualified.

**Part 5 Water analyses, record keeping and reporting**

**18 Purpose of part**

This part prescribes requirements in relation to—

- (a) analysing a public potable water supply to which fluoride has been added by a public potable water supplier; and
- (b) recording and reporting the results of the analysis.

**19 Prescribed testing by water suppliers**

- (1) The public potable water supplier must each day—
  - (a) collect at least 1 sample of fluoridated water from the public potable water supply at a point where the fluoridated water has a consistent concentration of fluoride; and
  - (b) measure the concentration of fluoride in the fluoridated water using an approved method (a *prescribed test*).
- (2) The public potable water supplier must keep the results of a prescribed test for at least 5 years from the day the test was performed.

**20 Monthly laboratory testing**

- (1) The public potable water supplier must on 1 day of each month—

[s 21]

---

- (a) divide a sample collected under section 19(1)(a) into 2 parts; and
  - (b) measure the concentration of 1 part of the sample using an approved method; and
  - (c) send the other part of the sample to an accredited laboratory to measure the concentration of fluoride in the part using an approved method.
- (2) The public potable water supplier must obtain the results of the analysis performed under subsection (1)(c).
  - (3) The public potable water supplier must keep the results of the analysis for at least 5 years from the day the analysis was obtained by the water supplier.

## **21 Chief executive may require additional test**

- (1) The chief executive may ask the public potable water supplier to—
  - (a) collect an additional sample of fluoridated water from the public potable water supply; and
  - (b) measure the concentration of fluoride in the fluoridated water using an approved method (the *additional test*) within 1 day of the request being made.
- (2) The public potable water supplier must—
  - (a) comply with the request under subsection (1); and
  - (b) notify the chief executive of the results of the additional test within 1 day of carrying out the test.

## **22 Daily recording of fluoride compound information**

- (1) This section applies if the form of fluoride added to the public potable water supply is a fluoride compound.
- (2) The public potable water supplier must each day record—
  - (a) the volume of water to which the fluoride compound has been added; and

- 
- (b) the amount of the fluoride compound the water supplier has added for the day, even if the amount is zero; and
  - (c) the calculated fluoride concentration of the fluoridated water; and
  - (d) the fluoride concentration of the fluoridated water, measured by a prescribed test.
- (3) The record must be made in the approved form before the end of the day to which the record relates.
- (4) For subsection (2)(c), the calculated fluoride concentration of fluoridated water is the concentration of the fluoridated water worked out using the following formula—

$$\frac{A}{B} + C$$

where—

*A* means the amount of the fluoride compound in milligrams that the public potable water supplier has added for the day.

*B* means the volume of water in litres to which the public potable water supplier has added the fluoride compound for the day.

*C* means the concentration of the naturally occurring fluoride measured in milligrams for each litre contained in the public potable water supply before the fluoride compound is added to the water supply for the day.

## 23 Reporting fluoridation information

- (1) The public potable water supplier must prepare a report for each quarter stating the following information for the quarter—
- (a) the number of samples of water taken for prescribed testing under section 19 by the water supplier;
  - (b) the average fluoride concentration of fluoridated water measured by prescribed tests performed by the water supplier;



**25 Prescribed entity—Act, s 73**

For section 73(b) of the Act, NATA is the entity prescribed.

**26 Forms**

The chief executive may approve forms for use under this regulation.

**Part 7 Repeal**

**27 Repeal**

The Water Fluoridation Regulation 2008, SL No. 394 is repealed.

## **Schedule 1      Fluoride concentrations for local government areas**

section 4(1)

### **Part 1              Fluoride concentration 0.6mg/L**

Burke  
Carpentaria  
Cloncurry  
Doomadgee  
Kowanyama  
McKinlay  
Mornington

### **Part 2              Fluoride concentration 0.7mg/L**

Aurukun  
Banana  
Barcaldine  
Barcoo  
Blackall-Tambo  
Boulia  
Bulloo  
Burdekin  
Cairns  
Cassowary Coast  
Central Highlands

Charters Towers  
Cherbourg  
Cook  
Croydon  
Diamantina  
Douglas  
Etheridge  
Flinders  
Gladstone  
Hinchinbrook  
Hope Vale  
Isaac  
Livingstone  
Lockhart River  
Longreach  
Mackay  
Mapoon  
Mareeba  
Mount Isa  
Murweh  
Napranum  
Northern Peninsula Area  
Palm Island  
Paroo  
Pormpuraaw  
Quilpie  
Richmond  
Rockhampton

Tablelands  
Torres  
Torres Strait Island  
Townsville  
Whitsunday  
Winton  
Woorabinda  
Wujal Wujal  
Yarrabah

### **Part 3                      Fluoride concentration 0.8mg/L**

Balonne  
Brisbane  
Bundaberg  
Fraser Coast  
Gold Coast  
Goondiwindi  
Gympie  
Ipswich  
Lockyer Valley  
Logan  
Maranoa  
Moreton Bay  
Noosa  
North Burnett  
Redland  
Scenic Rim

Somerset

South Burnett

Southern Downs

Sunshine Coast

Toowoomba

Western Downs

## Schedule 2      Impurities affecting public health

section 7

Column 1	Column 2	Column 3	Column 4
	<b>Fluorosilicic acid</b>	<b>Sodium fluoride</b>	<b>Sodium fluorosilicate</b>
<b>Impurity</b>	<b>mg/L</b>	<b>mg/kg</b>	<b>mg/kg</b>
Antimony	47	130	180
Arsenic	160	440	590
Barium	32,000	30,000	20,000
Beryllium	950	2,600	3,600
Cadmium	32	88	120
Chromium (total)	790	2,200	3,000
Copper	32,000	30,000	20,000
Lead	160	440	590
Mercury	16	44	59
Nickel	320	880	1,200
Selenium	160	440	590
Uranium	270	750	1,000

---

## Schedule 3 Dictionary

### section 2

***accredited laboratory*** means an Australian laboratory accredited by NATA as competent to perform the type of analyses required under this regulation.

***approved form*** means a form approved by the chief executive under section 26.

***approved method*** means—

- (a) SPADNS colorimetric method; or
- (b) ion-selective electrode method; or
- (c) ion chromatography.

***automatic fluoride dosing equipment*** means mechanical equipment that automatically adds a fluoride compound to water.

***batch analysis certificate***, for a fluoride compound, means a certificate stating the concentration of impurities in the fluoride compound.

***fluoridated water*** means water to which fluoride has been added.

***fluoride compound*** see section 3(2).

***NATA*** means the National Association of Testing Authorities, Australia ACN 004 379 748.

***naturally occurring fluoride*** see section 3(3).

***prescribed test*** see section 19(1)(b).

***quarter*** means each of the following—

- (a) 1 January to 31 March of each year;
- (b) 1 April to 30 June of each year;
- (c) 1 July to 30 September of each year;
- (d) 1 October to 31 December of each year.

*water blending equipment* means equipment that blends naturally occurring fluoride with another source of water.

ENDNOTES

- 1 Made by the Governor in Council on 20 February 2020.
- 2 Notified on the Queensland legislation website on 21 February 2020.
- 3 The administering agency is Queensland Health.

© State of Queensland 2020