



Regulations on water supply and drinking water (drinking water regulations)

Date	FOR-2016-12-22-1868
Ministry	Ministry of Health and Welfare
Published	In 2016 booklet 19
Entry into force	01.01.2017
Changing	<u>FOR-2001-12-04-1372</u> , <u>FOR-2003-10-10-1233</u>
Applies to	Norway
Home	<u>ACT-2003-12-19-124-§5</u> , <u>ACT-2003-12-19-124-§6</u> , <u>ACT-2003-12-19-124-§7</u> , <u>ACT-2003-12-19-124-§ 8</u> , <u>ACT-2003-12-19-124-§9</u> , <u>ACT-2003-12-19-124-§10</u> , <u>ACT-2003-12-19-124-§14</u> , <u>ACT-2003-12-19-124-§15</u> , <u>ACT-2003-12-19-124-§16</u> , <u>ACT-2003-12-19-124-§23</u> , <u>ACT-2003-12-19-124-§24</u> , <u>ACT-2003-12-19-124-§25</u> , <u>ACT-2003-12-19-124-§26</u> , <u>ACT-2003-12-19-124-§27</u> , <u>ACT-2003-12-19-124-§28</u> , <u>ACT-2003-12-19-124-§32</u> , <u>FOR-2003-12-19-1790</u> , <u>ACT-2000-06-23-56-§2-2</u> , <u>ACT-2011-06-24-29-§4</u> , <u>ACT-2011-06-24-29-§5</u> , <u>ACT-2011-06-24-29-§6</u> , <u>ACT-2011-06-24-29-§7</u> , <u>ACT-2011-06-24-29-§8</u> , <u>ACT-2011-06-24-29-§10</u> , <u>ACT-2011-06-24-29-§31</u> , <u>ACT-2011-06-24-29-§32</u>
Announced	30.12.2016 at 15.15
Corrected	03.01.2017 (section 18)
Short title	The drinking water regulations

Authority: Established by the Ministry of Health and Care on 22 December 2016 based on Act 19 December 2003 no. 124 on food production and food safety, etc. (Food Act) § 5, § 6, § 7, § 8, § 9, § 10, § 14, § 15, § 16, § 23, § 24, § 25, § 26, § 27, § 28 and § 32 cf. delegation decision of 19 December 2003 no. 1790, Act of 23 June 2000 no. 56 on health and social preparedness (Health Preparedness Act) Section 2-2 and Act 24 June 2011 No. 29 on public health work (Public Health Act) Section 4, Section 5, Section 6, Section 7, Section 8, Section 10, § 31 and § 32.

EEA references: EEA Agreement Annex XX No. 7a (Directive 98/83/EC as amended by Directive (EU) 2015/1787).

Chapter overview:

Main section

Appendix 1 Limit values

Appendix 2 Measure limits

Appendix 3 Application for approval of water treatment chemicals must contain the following documentation:

§ 1. Purpose

The purpose of the regulation is to protect human health by requiring the safe supply of sufficient quantities of health-safe drinking water that is clear and without prominent smell, taste and colour.

§ 2. Scope

The regulation applies to all drinking water as defined in § 3 b, and all conditions that may have an impact on the drinking water.

The regulation does not apply to natural mineral water and spring water as defined in the regulation on natural mineral water and spring water.

For facilities on the Norwegian continental shelf and Norwegian air and sea vessels, the regulation applies if the drinking water on these is not separately regulated in other regulations.

§ 3. Definitions

In this regulation is meant

- a. *distribution system*: technical installation that distributes or stores drinking water from the water treatment plant up to the point of connection to the individual water supply or internal distribution network or even the tapping point for which the water works owner is responsible
- b. *drinking water*: all forms of water that is either untreated or after treatment to be drunk, used in cooking, for other household purposes or in food companies where requirements are made on the use of drinking water. Drinking water does not include pure water and pure seawater as defined in the Food Hygiene Regulations
- c. *single water supply*: system that supplies drinking water to only a single dwelling or holiday home, and which consists of one or more of the following elements: water inflow area, raw water source, technical installation that treats the water and technical installation that distributes or stores drinking water. Individual water supply also includes connecting pipes and technical installations that distribute or store drinking water from and including the connection point to the water supply system's distribution system or internal distribution network
- d. *hygienic barrier*: natural or constructed barrier or measure that removes or inactivates disease-causing viruses, bacteria, parasites or other microorganisms, or that dilutes, removes or transforms chemical substances to a level where they no longer pose a health risk
- e. *internal distribution network*: technical installation which is not a single water supply and which distributes or stores drinking water from and including the connection point towards

the water supply system's distribution system to the connection point to the individual water supply or even tap point for which the owner of the internal distribution network is responsible. Internal distribution network is inside a building or between buildings with the same owner, or on air and sea vessels that bunker water, e.g. *produced water per day*: the amount of drinking water that comes out of the water treatment plant in an average day in the week of the year with the highest production, or which in the corresponding week is received into a distribution system that constitutes a water supply system alone. For water supply systems without a water meter, the amount of water produced per day is calculated by multiplying the number of people supplied in the week of the year in which the water supply system supplies the most people, by 0.2 m g. *raw water*: water used for the production of drinking water h. *raw water source*: water body as raw water is obtained from i. ³

vulnerable subscriber: subscriber who is characterized by a high risk of illness or others

serious consequences if sufficient quantities of health-safe drinking water are not supplied

j. *water treatment plant*: technical plant that distributes or stores the water from the raw water source up to and including the technical plant that treats the water in a water supply system

k. *water supply system*: system which is not a single water supply, and which consists of one or more of the following elements: water catchment area, raw water source, water treatment plant and distribution system. The water inflow area or raw water source alone does not constitute a water supply system l. *water inflow area*; area, above and below

ground, from which the water in the raw water source comes from m. *water utility owner*: the natural or legal person or persons who are responsible for the requirements until the water supply system is complied with.

§ 4. Pollution

Contaminating drinking water is prohibited. The ban covers all activities, from the water intake area to the tap points, which entail a risk of the drinking water being contaminated. Activities also mean outdoor activities and other exercise of the right of the general public. Where protective measures have been established pursuant to § 12 or restrictions pursuant to § 26, the prohibition applies to violations of these. In the water supply areas, agricultural activity can take place if it does not contaminate the drinking water or lead to a breach of protective measures pursuant to § 12 or restrictions pursuant to § 26.

The subscribers must have suitable protection against backflow in accordance with the requirements of the Planning and Building Act and building technical regulations to prevent the drinking water in the distribution system from being contaminated.

§ 5. Limit values

The waterworks owner must ensure that the drinking water is safe for health, clear and free of impurities smell, taste and colour. The drinking water must

- a. not contain viruses, bacteria, parasites, other microorganisms or substances that in quantity or concentration constitutes a possible health hazard and
- b. comply with the limit values in Appendix 1.

The drinking water must comply with the requirements in the first paragraph in the following places:

- a. at connection points to other water supply systems b. at connection points to internal distribution networks or individual water supplies c. at tapping points for which the water utility owner is responsible d. where the water leaves a water tank for which the water utility owner is responsible for.

The owner of an internal distribution network must ensure that the internal distribution network does not make the drinking water less safe in terms of health. The internal distribution network must also not contribute to the drinking water becoming less clear or having a prominent smell, taste or colour.

The owner of a single water supply is himself responsible for ensuring that the drinking water is safe for health, clear and without prominent smell, taste and colour.

§ 6. Hazard mapping and hazard management

The waterworks owner must identify the hazards that must be prevented, removed or reduced to an acceptable level in order to ensure the supply of sufficient quantities of health-safe drinking water that is clear and without prominent smell, taste and colour.

The water works owner must ensure that measures that prevent, remove or reduce the hazards to an acceptable level are identified and implemented.

Hazard mapping and hazard management shall form the basis for emergency preparedness as described in § 11.

The waterworks owner must ensure that the hazard mapping and hazard management are up to date.

§ 7. Internal control

The water works owner must establish internal control at the water supply system, and ensure that this is followed up. The internal control must ensure and show that the requirements in this regulation are complied with, and must be adapted to the nature and extent of the water supply system.

The internal control must at least include

- a. how the water supply system is organised, and what the responsibility and authority are placed
- b. the routines the waterworks owner has established to ensure that the requirements in these regulations are complied with
- c. records that show that the routines are complied with
- d. the routines that are followed if deviations from the requirements in these regulations occur
- e. the routines that are followed to prevent deviations from the regulations repeats.

The internal control must be in writing for water supply systems with produced water per day of at least 10 m drinking water, or which supply one or more vulnerable subscribers. If necessary, the Norwegian Food Safety Authority can order smaller water supply systems to document the internal control in writing.

The waterworks owner must ensure that the internal control is up to date, and that everyone who contributes to produce and deliver drinking water works in accordance with this.

§ 8. Competence and training

The water utility owner must ensure that the water supply system has, or through agreement has access to, necessary competence.

The waterworks owner must ensure that everyone who participates in activities covered by these regulations is provided training that is in relation to the work tasks. Everyone must be familiar with the meaning of the requirements in § 5, § 10 and § 11.

§ 9. *Security of delivery*

The waterworks owner must ensure that the water supply system is equipped and dimensioned as well as has operational plans and contingency plans to be able to supply sufficient quantities of drinking water at all times.

The waterworks owner must arrange for the water supply system to supply emergency water to drinks and personal hygiene without using the ordinary distribution system.

During crises or disasters in peacetime or during war, the water supply can be maintained to secure water for necessary purposes even if the concentration of one or more parameters is above the limit values in appendix 1. This can only be done in agreement with the municipal doctor in accordance with the Public Health Act § 27 letter b and the Norwegian Food Safety Authority, and after the subscribers have been notified in accordance with the requirements of § 23 second paragraph.

§ 10. *Preventive insurance*

The water works owner must ensure that the water treatment plant and all relevant parts of the distribution system are sufficiently physically secured, and that all control systems are sufficiently secured against unauthorized access and use.

§ 11. *Preparedness*

The waterworks owner must ensure that necessary emergency preparations are carried out and emergency plans are drawn up in accordance with the Health Emergency Preparedness Act and regulations on requirements for emergency planning.

The water utility owner of water supply systems with produced water per day of at least 10 m drinking water, or which supplies one or more vulnerable subscribers, must prepare a plan for emergency drills in accordance with § 7 of the regulations on requirements for emergency planning. The waterworks owner must ensure that this plan is updated and followed.

3

§ 12. *Protective measures*

The water works owner must ensure that the drinking water is protected against contamination.

The waterworks owner must plan the necessary measures to protect the water inflow area and the raw water source. The measures must be based on the hazard mapping in section 6.

The waterworks owner must carry out relevant protection measures and inform affected municipalities if there is a need for measures that require follow-up in accordance with section 26.

The waterworks owner must inform the general public about the ban on pollution, where this is the case relevant. This can, for example, be done with notices in the water inflow area.

The waterworks owner must ensure that subscribers who, according to the hazard mapping in § 6, may pose a particular risk of contamination of the drinking water due to backflow, have suitable safeguards against this. The waterworks owner can make demands on the maximum amount of water that can be taken out when testing sprinkler systems.

§ 13. *Water treatment*

The water works owner must ensure that the raw water is treated so that the drinking water meets the requirements in § 5. The water treatment and source protection according to section 12 must together provide sufficient hygienic barriers. This means that the water treatment must be adapted to a. the raw water quality b. the

hazards identified in accordance with § 6 and c. the amount of water produced per day.

A water treatment method that removes or inactivates disease-causing viruses, bacteria, parasites or other micro-organisms, must always be included, unless the water supply system has a groundwater source and the hazard mapping according to § 6 indicates that it is not necessary.

The water works owner must ensure that a plan is drawn up for how the water treatment plant is to be operated and maintained, and that this plan is updated and followed.

§ 14. *Water treatment chemicals*

The waterworks owner and the owner of the internal distribution network must ensure that it is only used water treatment chemicals approved by the Norwegian Food Safety Authority. A list of approved water treatment chemicals can be found on the Norwegian Food Safety Authority's website.

Manufacturers and importers must apply to the Norwegian Food Safety Authority for approval of water treatment chemicals. The application must at least contain the documentation described in Appendix 3. Water treatment chemicals can only be approved if their use does not result in hazardous amounts of substances in the drinking water. Disinfectants must be approved in accordance with the biocide regulations. The Norwegian Food Safety Authority can withdraw the approval if new information indicates this.

§ 15. *Distribution system and internal distribution network*

The water works owner must ensure that the water supply system's distribution system is in satisfactory condition and operated in a satisfactory manner to prevent the drinking water from becoming contaminated and to contribute to the sustainable use of groundwater and surface water.

The waterworks owner must ensure that a plan is prepared for how the distribution system is to be maintained and renewed, and that this plan is updated and followed.

The owner of the internal distribution network must ensure that the internal distribution network is in satisfactory condition, and that it does not contribute to drinking water in the distribution system becoming contaminated.

§ 16. *Materials*

The water works owner and the owner of the internal distribution network must ensure that the materials that come in contact with the drinking water, are safe in terms of health. The materials must not release substances into the drinking water in quantities that are hazardous to health or in quantities that contribute to the drinking water becoming less clear or having a prominent smell, taste or colour.

§ 17. *Registration*

The water works owner must register the water supply system on a form determined by the Norwegian Food Safety Authority.

The water utility owner must register water supply systems that were not registered as of 1 July 2017 by 1 July 2018.

New water supply systems must be registered before the start of construction. The registration may trigger claims about a plan approval in accordance with § 18.

The following information must be registered: a. the name of the water supply system b. the name and address of the water utility owner c. the water supply system's organization number in accordance with the Unit Register Act, or the date of birth of the water utility owner if the water supply system does not have an organization number d. the amount of water the water supply system is designed to produce and the number of subscribers e. type raw water source f. the coordinates of intake points in all raw water sources, including wells, which are part of the water supply system and g. type of water treatment used.

The waterworks owner must ensure that the registered information is up to date. Changes in the fourth paragraph, letter d, may trigger requirements for planning approval in accordance with section 18.

Section 18. *Plan approval*

Water supply system that must be sized to provide produced water per day of at least 10 m³ drinking water, or supply one or more vulnerable subscribers, is subject to planning approval.

The water utility owner in the case of water supply systems subject to planning approval shall

- a. apply to the Norwegian Food Safety Authority for approval of the establishment and operating plan. The plan must document that the water supply system will be able to meet the requirements of this regulation. The waterworks owner must apply on a form established by the Norwegian Food Safety Authority b.

inform the affected municipalities, so that they can comment on the plan in accordance with section 26 c. ensure that the plan is approved by the Norwegian Food Safety Authority before construction starts and d.

register that the water supply system is ready to be installed operation. This must be done on a form determined by the Norwegian Food Safety Authority before it is put into operation.

In the case of changes that have an impact on the production of sufficient amounts of health-safe drinking water in water supply systems subject to planning approval, the waterworks owner must follow the provisions in letter a to di, first paragraph.

Water supply systems that are in operation without an approved plan as of 1 January 2017 are exempt from the requirements in the first paragraph.

§ 19. *Sampling plan*

The water utility owner must prepare a sampling plan for the water supply system.

The sampling plan must be based on the hazard mapping in § 6, and contain an overview of

- a. the tests that are necessary to ensure and show that the water supply system meets the requirements in section 5. This includes the minimum requirements for raw water samples mentioned in section 20 and the minimum requirements for drinking water samples mentioned in section 21. If a water supply system receives drinking water from another water supply system, the water utility owners can these water supply systems

- collaborate on the sampling plan
- b. where the samples are to be taken, at the water treatment plant and in the distribution system to ensure that the drinking water complies with the requirements in § 5. If the waterworks owner can show that the concentration of a given substance in the drinking water does not increase beyond the distribution system, can the samples for analysis of these substances are taken immediately after the water treatment
- c. when the samples are to be taken. The raw water samples and drinking water samples must be distributed throughout the year or the period of use to be as representative as possible
- d. which parameters the various samples are to be analyzed for.

The waterworks owner must ensure that the sampling plan is updated and followed.

§ 20. Minimum requirements for raw water samples

The water works owner must take raw water samples in accordance with the sampling plan referred to in section 19.

The minimum requirement for the number of raw water samples is:

Minimum number of raw water samples

Produced water per day (m³) a) Up to	Raw water samples per year
and including 10 b)	1
From 10 to and including 2,000 c)	4
From 2,000 to and including 6,000 d)	8
From 6,000	12

The raw water samples must at least be analyzed for *E. coli*. For water supply systems with at least 10 m³ produced water per day, the raw water samples must also at least be analyzed for intestinal enterococci, coliform bacteria, pH, turbidity and colour. Sampling and analysis of raw water samples must be carried out in accordance with international or national standards when such are available. There appendix 1 or appendix 2 specifies requirements for analysis methods, these must be used. The laboratories which used, must be accredited for the relevant analyses.

§ 21. Minimum requirements for drinking water samples

The water works owner must take drinking water samples in accordance with the sampling plan referred to in section 19.

The parameters for which there are minimum requirements are divided into test groups A and B according to how often the tests are to be carried out taken. The minimum requirement for the frequency of drinking water samples is:

Minimum number of drinking water samples

Produced water per day (m³)	Drinking water samples per year for sample group AX is m³ produced water per day	Drinking water samples per year for sample group BX is m³ produced water per day
a) Even 10 and none vulnerable subscribers	1	
b) From 10 up to and including 100, or less so with the vulnerable subscribers	4	0.5 = 1 every two years
c) From 100 up to and including 1000 d) From 1000 up to and including 10,000	4 + (3X / 1,000)	1 + (X / 3,300)
e) From 10,000 up to and including	4 + (3X / 1000)	3 + (X / 10,000)

100,000		
f) From 100,000	$4 + (3X / 1,000)$	$10 + (X / 25,000)$

The drinking water samples for sample group A must be analyzed for the parameters specified with sample group A in Appendix 1 and Appendix 2. The drinking water samples for sample group B must be analyzed for the parameters specified with sample group B in Appendix 1 and Appendix 2. Drinking water samples must be taken in accordance with NS-ISO 5667-5 and NS-EN ISO 19458. Analyzes of drinking water samples must be carried out in accordance with international or national standards when such are available. Where Annex 1 or Annex 2 specifies requirements for analysis methods, these must be used.

The laboratories used must be accredited for the relevant analyses.

The number of analyzes in sample groups A and B can be reduced, with the exception of the analyzes for *E. coli*. To use this option, the water works owner must carry out a risk assessment in accordance with NS-EN 15975-2 or an equivalent method. The risk assessment must be based on the results of the raw water tests in accordance with § 20 and take into account the results of the monitoring programs established in accordance with the water regulations § 17 and § 18. Before the water works owner can reduce the number of analyzes in sample group A or B, the risk assessment must be accepted by the Norwegian Food Safety Authority.

If the risk assessment determines that it does not pose a health hazard, a. the frequency of the analyzes for a parameter can be reduced. To be able to do this, all representative drinking water samples from a period of 3 years must be lower than 60 per cent of the limit value or action limit for the relevant parameter. At least two samples must be analyzed

b. analyzes of a parameter are removed from the sampling plan referred to in § 19, so that the drinking water is no longer monitored for this. To be able to do this, all representative drinking water samples from a period of 3 years must be lower than 30 per cent of the limit value or action limit for the relevant parameter. At least two samples must be analyzed.

Section 22. Measures

If the drinking water does not comply with the requirements in section 5, first paragraph, or if the action limits in appendix 2 are exceeded, the waterworks owner must immediately investigate the reason for the deviation.

In case of deviation from the requirements in section 5, first paragraph, the waterworks owner must implement as quickly as possible measures to correct the deviation.

In the case of deviations from the action limits in Appendix 2, the waterworks owner must, at the same time as the cause is investigated, assess whether the deviation may constitute a health hazard. If the deviation may constitute a health hazard, the waterworks owner must implement measures to correct the deviation as quickly as possible.

§ 23. Obligation to provide information to subscribers

The waterworks owner must notify the subscribers immediately in the event of suspected deviations from the requirements in section 5, first paragraph, or in the event of exceeding the action limits in appendix 2 that may constitute a health hazard. The waterworks owner must give advice on how the subscribers should behave. If the water works owner does not comply with this obligation to provide information, the Norwegian Food Safety Authority can inform the subscribers at the expense of the water supply system.

The water works owner must ensure that subscribers have access to up-to-date information on drinking water quality at all times.

If a risk assessment has been carried out which results in the number of analyzes in sample group A or B being reduced as provided for in section 21, subscribers must have access to a summary of this risk assessment.

Section 24. *Obligation to provide information to the Norwegian Food Safety Authority*

The waterworks owner must notify the Norwegian Food Safety Authority immediately in the event of suspected deviations from the requirements in section 5 first paragraph or in case of exceeding the action limits in appendix 2 which may constitute a health hazard.

The waterworks owner must at the same time inform about which measures are carried out in accordance with the requirements of section 22 and what advice they give to subscribers.

If the Norwegian Food Safety Authority requests it, the waterworks owner must provide the Norwegian Food Safety Authority with the information that is available necessary for the Norwegian Food Safety Authority to be able to carry out its tasks in accordance with these regulations.

Section 25. *Reporting*

In the case of a water supply system with produced water per day of at least 10 m³, the water works owner must report the analysis results from the raw water samples in § 20 and the drinking water samples in § 21. The waterworks owner must also report other relevant data that is necessary to meet Norway's international reporting obligations. The reporting must be done on a form determined by the Norwegian Food Safety Authority by 15 February of the following year.

§ 26. *The municipality's duties*

In accordance with Chapter 2 of the Public Health Act, the municipality must take drinking water into account when it prepares the area part of the municipal plan and zoning plans, as well as when it grants permits in accordance with the relevant regulations. If necessary, the municipality must take the initiative for inter-municipal planning cooperation in order to take care of drinking water concerns where the water supply system is located in several municipalities.

The municipality must, in collaboration with the water works owner, assess the need for restrictions to protect raw water sources and water catchment areas. This also applies in connection with planning work according to the Planning and Building Act.

On the basis of data from the Norwegian Food Safety Authority, the municipality must have an overview of all water supply systems in the municipality in order to fulfill its obligations under the Public Health Act, Chapter 2. The municipality must have an overview of where the residents can find information on the quality of drinking water in accordance with section 23, second paragraph.

The municipality must make a statement on matters relating to environmentally-oriented health protection and land use plans for new water supply systems and in the case of applications for changes as referred to in section 18. _____

The municipality must, in accordance with Chapter 5 of the Civil Protection Act and the consideration of public safety given in the Planning and Building Act, ensure that the supply of drinking water is assessed and followed up.

Section 27. *Duties of the county municipality*

In accordance with Chapter 4 of the Public Health Act, the county municipality must take drinking water into account when it prepares regional plans.

As the water regional authority, the county municipality must ensure that drinking water considerations are taken care of in them the regional water management plans according to the water regulations.

Section 28. Supervision and decisions

The Norwegian Food Safety Authority supervises and can make the necessary decisions in accordance with § 23 to § 26 of the Food Act, for all the provisions of these regulations with the exception of § 26 and § 27.

Supervision with the provisions in § 26 and § 27 follows from the provisions in the Public Health Act § 31 and Section 32 and Section 29 of the Civil Protection Act.

§ 29. Dispensation

In special cases, the Norwegian Food Safety Authority may waive provisions in these regulations, provided that it will not conflict with Norway's international obligations.

Section 30. Punishment

Intentional or negligent violation of the provisions of these regulations, or individual decisions which is given on the basis of these regulations, is punishable in accordance with Section 28 of the Food Act, Section 18 of the Public Health Act and Section 6-5 of the Health Preparedness Act.

§ 31. Entry into force

This regulation comes into force on 1 January 2017. The registration obligation according to section 17 comes into force on 1 July 2017.

Regulation 4 December 2001 no. 1372 on water supply and drinking water is repealed on 1 January 2017.

Regulation 10 October 2003 no. 1233 on the prohibition of activities that may pollute Glitre as water supply system, Modum, Øvre Eiker, Nedre Eiker and Lier municipalities, Buskerud will be continued until further notice.

Attachment 1
Limit values

	Limit value	Unit	Sample group	Analysis method	Analysis uncertainty (percentage of limit value)	Notice
1,2-dichloroethane	3.0	µg/l	B		40	
Acrylamide	0.10	µg/l	B			The parameter does not need analyzed, but must be calculated if the hazard mapping in § 6 shows that the parameter can be relevant. Maximum quantity monomers are calculated from what the specifications say about

						the polymer's transfer to the drinking water on contact.
Antimony	5.0	µg/l	B		40	
Arsenic	10	µg/l	B		30	
Benzene	1.0	µg/l	B		40	
Benzo(a)pyrene	0.010	µg/l	B		50	In the cases where it is not possible to comply with the requirements of analysis uncertainty, it must best available technique used (up to 60 per cent).
Lead	10	µg/l	B		25	The sample must be taken so that it gives a representative image of a weekly average for the water used.
Living	1.0	mg/l	B		25	
Bromate	10	µg/l	B		40	
Cyanide	50	µg/l	B		30	The method determines it total amount of cyanide, regardless of chemical form.
<i>E. coli</i>	0	Quantity/100 ml	A	NS-EN ISO 9308-1 or NS-EN ISO 9308-2		Analysis method approved in compliance with regulation 12. April 2001 No. 1372 re water supply and drinking water can be used until 30 June 2017.
Epichlorohydrin	0.10	µg/l	B			The parameter does not need analyzed, but must is calculated if the hazard mapping in § 6 shows that the parameter can be relevant. Maximum quantity monomers are calculated from what the specifications say about the polymer's transfer to the drinking water on contact.
Color	Acceptable for the subscribers		A			The Norwegian Food Safety Authority recommends that the number of colors does not exceed 20 mg/l Pt. See also attachment 2.
Fluoride	1.5	mg/l	B		20	
Intestinal enterococci	0	Quantity/100 ml	A	NS-EN ISO 7899-2		
Cadmium	5.0	µg/l	B		25	
Copper	2.0	mg/l	B		25	The sample must be taken so that it gives a representative image of a weekly average for the water used.
Chrome	50	µg/l	B		30	
Mercury	1.0	µg/l	B		30	
Smell	Acceptable for the subscribers		A			See also Appendix 2.
Nickel	20	µg/l	B		25	The sample must be taken so that it gives a representative image of a weekly average for the water used.
Nitrate	50	mg/l	B		15	
Nitrite	0.5	mg/l A or B			20	Is only in sample group A in them the cases in which it is used chloramine. Is otherwise in sample group B.
Pesticides, individually 0.10		µg/l	B		30–80	The limit value applies to each single pesticide individually. It also applies for the pesticides relevant metabolites, decomposition and reaction products. For aldrin, dieldrin, heptachlor and heptachlorepoxide is limit value 0.030 µg/l. The is only necessary to analyze for pesticides such as

						with a certain probability may be present in it current the water supply system. The analysis uncertainty for pesticides vary.
Pesticides, total	0.50	µg/l	B		30–80	The sum of the individuals the pesticides which analyzed in of the water supply system sampling plan. The limit value also applies for the pesticides relevant metabolites, decomposition and reaction products. It is just need to analyze for pesticides such as with a certain probability may be present in it current the water supply system. The analysis uncertainty for pesticides vary.
Polyaromatic hydrocarbons (PAHs)	0.10	µg/l	B		50	The sum of benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene and indeno(1,2,3-cd)pyrene. The analysis uncertainty applies for single substances such as make up 25 percent of the limit value.
Selenium	10	µg/l	B		40	
Taste	Acceptable for the subscribers		A			See also Appendix 2.
Tetrachloroethene	10	µg/l	B		30	The sum of the tetrachloroethene and the trichloreth should not exceed 10 µg/l. The analysis uncertainty applies for single substances such as make up 50 percent of the limit value.
Trichloroethene	10	µg/l	B		40	The sum of the tetrachloroethene and the trichloreth should not exceed 10 µg/l. The analysis uncertainty applies for single substances such as make up 50 percent of the limit value.
Trihalomethanes, total	100	µg/l	B		40	The sum of chloroform, bromoform, dibromochloromethane and bromodichloromethane. The analysis uncertainty applies for single substances such as make up 25 percent of the limit value.
Turbidity	Acceptable for the subscribers		A	NS-EN ISO 7027	30	The Norwegian Food Safety Authority recommends that the turbidity based on the water treatment plant does not exceed 1 NTU at water supply systems which uses surface water. The measurement of analysis uncertainty is estimated at 1 NTU. See also attachment 2.
Vinyl chloride	0.50	µg/l	B			The parameter does not need analyzed, but must is calculated if the hazard mapping in § 6 shows that the parameter can be relevant. Maximum quantity monomers are calculated from what the specifications say about the polymer's transfer to the drinking water on contact.

Appendix 2

Measure limits

	measure-limit	Unit Sample	group	Analysis method	Analysis uncertainty (percentage of action limit)	Notice
Aluminum	0.2	mg/l A or B			25	Is in sample group A in them the cases where aluminum becomes used as water treatment chemical. Is otherwise in test group B.
Ammonium	0.50	mg/l A or B			40	Is in sample group A in them the cases where chloramine becomes used. Is otherwise in sample group B.
<i>Clostridium perfringens</i> (including spores)	0	Quantity/100 ml	B	NS-EN ISO 14189		<i>Clostridium perfringens</i> is only mandatory to analyze for if the raw water is surface water, or is affected by surface water. If the action limit exceeded, shall the waterworks owner investigate about pathogens microorganisms or parasites, such as <i>Cryptosporidium</i> , is present. Analysis method approved in compliance with regulation 12. April 2001 No. 1372 re water supply and drinking water can be used until 30 June 2017.
Color	No abnormal change		A			The Norwegian Food Safety Authority recommends that the number of colors does not exceed 20 mg/l Pt. See also attachment 1.
Iron	0.2	mg/l A or B			30	Is only in sample group A in them the cases where iron is used as water treatment chemical. Is otherwise in test group B.
Germ count 22°C	100 and no abnormal change	Quantity/ml	A	NS-EN ISO 6222		
Chloride	250	mg/l	B		15	The water should not be corrosive.
Coliform bacteria	0	Quantity/100 ml	A	NS-EN ISO 9308-1 or NS-EN ISO 9308-2		Analysis method approved in compliance with regulation 12. April 2001 No. 1372 re water supply and drinking water can be used until 30 June 2017.
Conductivity	250	mS/m by 20°C	A		20	The water should not be corrosive.
Smell	No abnormal change		A			See also Appendix 1.
Manganese	0.05	mg/l	B		30	
Sodium	200	mg/l	B		15	
pH	6.5-9.5		A		0.2	The analysis uncertainty is not in percent of pH, but in pH units. The water should not be corrosive.
Taste	No abnormal change		A			See also Appendix 1.
Sulfate	250	mg/l	B		15	The water should not be

						corrosive.
Total Organic Carbon (TOC) No abnormal			B	CEN 1484	30	The measurement of analytical uncertainty must be estimated at 3 mg/l of TOC.
	change					
Turbidity	No abnormal change		A	NS-EN ISO 7027	30	The Norwegian Food Safety Authority recommends that the turbidity from the water treatment plant does not exceed 1 NTU water supply systems using surface water. The measurement of analytical uncertainty is estimated at 1 NTU. See also Appendix 1.

Appendix 3
Applications for approval of water treatment chemicals must contain the following documentation:

- a. information about the applicant with contact information
- b. the product's trade name
- c. name of the manufacturer
- d. information about use and maximum dosage
- e. information about chemical composition which involves a complete overview of all components with CAS number and percentage amount in the product to 100 percent and
- f. certificate of analysis for all components.