

Draft Safe Drinking Water Regulations 2015

The Governor in Council makes the following Regulations:

Dated:

Responsible Minister:
JILL HENNESSY
Minister for Health

Clerk of the Executive Council

PART 1—PRELIMINARY

1 Objective

The objective of these Regulations is to make further provision for the supply of safe drinking water by-

- (a) setting out the further matters to be addressed in risk management plans and the risks to be addressed in those plans; and
- (b) specifying the documents to be made available for inspection in a risk management plan audit; and
- (c) specifying the issues relating to the quality of drinking water and regulated water that are to be dealt with by a water supplier and water storage manager in an annual report; and
- (d) providing for other matters required to be prescribed under the **Safe Drinking Water Act 2003**.

2 Authorising provision

These Regulations are made under section 56 of the **Safe Drinking Water Act 2003**.

3 Commencement

These regulations come into operation on 18 July 2015.

4 Revocation

The Safe Drinking Water Regulations 2005¹ are **revoked**.

5 Definitions

In these Regulations—

accredited laboratory means a laboratory that holds accreditation from NATA in relation to testing for the sample analysis parameters;

critical control point means a point in a drinking water treatment process, at which control can be applied, and the effective operation of that control is

essential to prevent a hazard that may arise to human health or reduce the hazard to an acceptable level;

critical limit in relation to a critical control point means the value or limit at which the critical control point will cease operating effectively and that risk to human health arising from the water being treated may not be effectively managed;

drinking water treatment process means any process that is applied to water that is supplied, or is to be supplied, as drinking water, which is intended and designed to render the water suitable for supply as drinking water;

emergency and **emergency management** have the same meanings as in the **Emergency Management Act 1986**;

geographic co-ordinate includes—

- (a) a meridian of longitude by itself; and
- (b) a parallel of latitude by itself;

hazard means a biological, chemical, physical or radiological agent that has the potential to cause harm;

NATA means National Association of Testing Authorities, Australia, ACN 004 379 748;

proposed water sampling locality means the area identified in a proposal submitted by a water supplier under regulation 6;

relevant sampling frequency, in relation to a sample analysis parameter specified in column 1 of the Table set out in Schedule 2, means—

- (a) the frequency specified in column 2 of that Table opposite that parameter; or
- (b) if there is a notice under regulation 13(2) in force, the frequency specified in that notice in respect of that parameter;

sample analysis parameter means a parameter specified in column 1 of the Table in Schedule 2;

sample standard, for the purposes of regulation 14, means—

- (a) in relation to a sample analysis parameter other than *Escherichia coli*, the standard set out opposite that sample analysis parameter in column 3 of the Table in Schedule 2; or
- (b) in relation to *Escherichia coli*, that 100% of all samples of drinking water collected contain no *Escherichia coli*;

the Act means the **Safe Drinking Water Act 2003**;

water agency means a water storage manager or a water supplier;

water sampling locality means an area specified by the Secretary under regulation 6;

water sampling point means a location within a water sampling locality where water samples will be collected, as specified in a risk management plan as required under regulation 8(1)(d);

water sampling program means a program determined by a water agency for the purposes of monitoring water quality and that provides for matters relating to the collection of water samples for analysis including those matters set out in the water agency's risk management plan under regulation 8(1)(d).

PART 2 — WATER SAMPLING LOCALITIES

6 Water sampling locality proposals

- (1) The Secretary, by notice published in the Government Gazette, may specify an area that is supplied with drinking water by a water supplier to be a water sampling locality based on a proposal submitted to the Secretary by a water supplier incorporating the information specified in regulation 7.
- (2) A water supplier—
 - (a) must submit a proposal under subregulation (1) if the Secretary makes a direction under subregulation (3); or
 - (b) may submit a proposal under subregulation (1) on the initiative of the water supplier.
- (3) The Secretary may direct a water supplier to submit a proposal to the Secretary, providing information about an area that could be specified as a water sampling locality under subregulation (1), if the Secretary considers it would be desirable for the purposes of ensuring that water samples collected in the area that is supplied by the water supplier are representative of the drinking water that is supplied in that area.

7 Information required in proposal

A proposal submitted to the Secretary under regulation 6 must—

- (a) set out how the boundaries of the proposed water sampling locality have been determined, with reference to—
 - (i) the source or sources of the water that would be supplied as drinking water in the proposed water sampling locality; and
 - (ii) the treatment processes that would be applied to water that would be supplied as drinking water in the proposed water sampling locality; and
 - (iii) the distribution system that would be used to supply drinking water in the proposed water sampling locality; and
- (b) include a map on which the boundaries of the proposed water sampling locality are clearly marked; and
- (c) include all information reasonably available to the water supplier that assists to identify the boundaries of the proposed water sampling locality, including, where relevant and available to the water supplier—
 - (i) geographic co-ordinates; and
 - (ii) a freeway, highway, road, street or other thoroughfare; and
 - (iii) a railway line; and
 - (iv) a municipal boundary; and
 - (v) a physical feature of terrain; and
 - (vi) a waterway; and
 - (vii) a property boundary; and
 - (viii) any other information that the water supplier considers relevant.

PART 3—MANAGEMENT OF RISKS TO WATER SUPPLY

8 Risk management plan

- (1) For the purposes of section 9(1)(e) of the Act, a risk management plan must contain the following matters—
 - (a) the positions held by the persons responsible for managing hazards and risks to the quality of the water identified in the risk management plan;
 - (b) details of the procedures for consultation with other water agencies in relation to matters relevant to the hazards and risks to quality of the water supplied—
 - (i) to the water agency by other water agencies; and
 - (ii) by the water agency to other water agencies;
 - (c) details of or reference to emergency management arrangements and procedures for dealing with an incident, event or emergency that may adversely affect the quality or safety of drinking water, or result in water being supplied that poses a risk to human health, including—
 - (i) the positions held by persons responsible for dealing with such an incident, event or emergency; and
 - (ii) methods for communicating or disseminating information to the public in relation to any such incident, event or emergency;
 - (d) details of a water sampling program that—
 - (i) identifies the locations at which samples will be collected; and
 - (ii) outlines how the locations for collection of samples have been selected; and
 - (iii) specifies the frequency with which samples will be collected; and
 - (iv) in a risk management plan developed by a water supplier, describes how the following matters were considered when determining the locations for collection of samples and the frequency of samples—
 - (A) the need to select the locations from which samples will be taken with a view to ensuring that the samples collected in accordance with the water sampling program are representative of the drinking water supplied in the relevant water sampling locality; and
 - (B) the need to have a sufficient number of samples of drinking water collected to ensure that those samples are, so far as practicable, representative of the drinking water supplied in the water sampling locality; and
 - (v) specifies the basis on which the location for the collection of a particular sample will be determined, so as to ensure that, for the purposes of routine sampling, samples are not taken from the same collection point within a water sampling locality on two consecutive occasions; and
 - (vi) specifies the parameters for which samples will be tested and the frequency at which tests will be conducted for each parameter and, in a risk management plan developed by a water supplier, identifies—
 - (A) how the selection of the parameters and frequency of testing for each will assist the water supplier to monitor its compliance with the drinking water quality standards; and

- (B) how the chemicals and other substances used to disinfect or treat the drinking water being supplied to the relevant water sampling locality have been considered when selecting the parameters and the frequency for selecting the parameters;
 - (e) details of procedures and management systems for—
 - (i) ensuring that the amount and purity of chemicals added to drinking water does not adversely affect the quality of that water or pose a risk to human health; and
 - (ii) controlling any residue or chemical by-products imparted to drinking water as a result of the addition of chemicals to water supplied for drinking purposes;
 - (f) details of the requirements for competency and training of personnel who are employed or engaged by the water agency, as they relate to monitoring and management of hazards and risk, including policies, standards and guidelines that are imposed or adopted by the water agency;
 - (g) details of the infrastructure and other features of the system of supply that are designed to assist in the management of risks to the quality of the water that are identified in the risk management plan, including the method by which the effectiveness of the infrastructure and other features is verified;
 - (h) details of the activities undertaken, and measures taken, to monitor and manage hazards and risks to the quality of the water identified in the risk management plan, including any methods by which the effectiveness of the activities and measures are verified;
 - (i) if the risk management plan is prepared by a water agency that operates and maintains a drinking water treatment process—
 - (i) all critical control points in the system of supply; and
 - (ii) the critical limits relevant to each critical control point that is detailed in the risk management plan; and
 - (iii) any actions, procedures, processes, policies, standards, or guidelines that are applied when a critical limit is exceeded.
- (2) On and from 1 January 2016, for the purposes of section 9(1)(e) of the Act, a risk management plan prepared by a water agency that operates and maintains a drinking water treatment process must contain details of the methodology that is used by the water agency to quantify microbial hazards, including—
- (a) the extent to which pathogenic microorganisms are present in water that enters the drinking water treatment process; and
 - (b) the extent to which that drinking water treatment process—
 - (i) removes those pathogenic microorganisms from the water; or
 - (ii) reduces the amount of those pathogenic microorganisms in the water.
- (3) For the purposes of section 9(2) of the Act, a risk management plan must address the following risks—
- (a) the risk to human health that arises from the presence in water of—
 - (i) pathogenic micro-organisms; and
 - (ii) inorganic chemicals, including inorganic disinfection by-products; and

- (iii) organic chemicals, including pesticides, pesticide residues and organic disinfection by-products; and
 - (iv) radiological parameters; and
 - (v) algal toxins;
- (b) the risks arising from an incident or event that may cause the organisms, substances and matters referred to in paragraph (a) to be introduced into the system of supply of the water supplier or the water supplied by the water storage manager (as the case requires), by man or nature;
- (c) the risk of the organisms, substances and matters referred to in paragraph (a) entering into water being supplied by the water supplier or water storage manager (as the case requires), by reason of the transfer or distribution of that water.

9 Risk management plan audit

For the purposes of section 10(2) of the Act, the specified documents are—

- (a) the risk management plan; and
- (b) any document or operating manual, procedure or protocol created pursuant to the risk management plan, referred to in the risk management plan or containing material relating to the content of the risk management plan; and
- (c) any document or record that records or provides evidence of implementation of the risk management plan.

10 Audit certificate

For the purposes of section 12(2) of the Act, a risk management plan audit certificate must be in the form of Schedule 1.

11 Approval of risk management plan auditors

For the purposes of section 13(2) of the Act, the auditor approval criteria are that the applicant for approval—

- (a) either—
 - (i) holds an accreditation by an institution which, in the opinion of the Secretary, makes the applicant suitable for approval as a risk management plan auditor; or
 - (ii) demonstrates to the Secretary that the applicant has the experience, qualifications and skills necessary to independently conduct audits of risk management plans; and
- (b) is in the reasonable opinion of the Secretary a fit and proper person to be approved as an auditor; and
- (c) provides to the Secretary a written declaration that the applicant has no conflict of interest that would impinge on their ability to objectively conduct an audit of a risk management plan.

PART 4—DRINKING WATER QUALITY STANDARDS

12 Drinking water quality standards

For the purposes of section 17(1) of the Act, the quality standards specified for drinking water supplied within a water sampling locality are—

- (a) if the drinking water contains a parameter specified in column 1 of the Table in Schedule 2 that the parameter not exceed the standard set out in column 3 of that Table opposite that parameter; and
- (b) if the drinking water contains an algal toxin, or any other pathogen, or any substance or chemical not specified in column 1 of the Table in Schedule 2, that the water not contain that toxin, pathogen, substance or chemical, whether alone or in combination with another toxin, pathogen, substance or chemical, in such amounts that may pose a risk to human health.

13 Frequency of sampling for drinking water

- (1) A water supplier must collect, or cause to be collected, samples of drinking water, in accordance with the sampling program set out in the water supplier's current risk management plan, and in any case at a frequency not less than the relevant sampling frequency.

Penalty: 20 penalty units.

- (2) The Secretary, on the Secretary's own motion, or on the application of a water supplier, may, by notice published in the Government Gazette, vary the frequency at which samples of drinking water are to be collected at a water sampling point located within a water sampling locality in respect of a parameter specified in column 1 of the Table in Schedule 2.
- (3) In determining whether to vary the frequency at which a sample of drinking water is to be collected at a water sampling point located within a water sampling locality, the Secretary may have regard to—
 - (a) the number of persons taking water from the water supplier's system of supply within the water sampling locality, including any difference in the number of persons taking water at different times in the year; and
 - (b) the need to have a sufficient number of samples of drinking water to be collected to ensure that those samples are, so far as practicable, representative of the drinking water supplied in the water sampling locality; and
 - (c) the chemicals and other substances used by the water supplier to disinfect or treat the drinking water being supplied to the relevant water sampling locality; and
 - (d) any other matter the Secretary considers relevant.
- (4) A notice under subregulation (2) must specify—
 - (a) the water supplier in respect of which the notice applies; and
 - (b) the relevant water sampling locality being supplied drinking water by the water supplier; and
 - (c) the parameter specified in column 1 of the Table in Schedule 2 in respect of which the frequency for the collection of samples of drinking water has been varied; and
 - (d) the frequency at which samples of drinking water are to be collected in respect of the parameter specified in column 1 of the Table in Schedule 2; and
 - (e) the period for which the frequency specified in the notice will apply; and
 - (f) the date on which the notice takes effect.

14 Samples of drinking water must be analysed

- (1) A water supplier must cause every sample of drinking water collected in accordance with the water sampling program set out in its current risk management plan to be given to an accredited laboratory for analysis.

Penalty: 20 penalty units.

- (2) A water supplier must ensure that every sample of drinking water given under subregulation (1) to an accredited laboratory for analysis is analysed by that accredited laboratory to measure, in relation to each of the parameters identified in the water sampling program set out in its current risk management plan, the amount of that parameter in the sample.

Penalty: 20 penalty units.

15 Results of analysis of samples of drinking water must be given to the Secretary in specified circumstances

- (1) The water supplier must ensure that a written summary of the results of the analysis conducted in accordance with the water sampling program set out in the water supplier's current risk management plan is given to the Secretary not later than ten days after the water supplier receives the results from the accredited laboratory that conducted the analysis if the results indicate—
 - (a) any of the sample analysis parameters has exceeded the relevant sample standard; or
 - (b) any parameter that was subject to analysis by the accredited laboratory in accordance with regulation 14(2) was present in the samples analysed at a level that in the reasonable opinion of the relevant water supplier may pose a risk to human health.

Penalty: 20 penalty units.

- (2) A water supplier must ensure that the written summary of results given to the Secretary under subregulation (1)—
 - (a) specifies the amount by which any of the sample analysis parameters has exceeded the relevant sample standard; and
 - (b) provides the performance history of the sample analysis parameter; and
 - (c) provides any related results of water quality analysis undertaken in accordance with regulation 14.

PART 5—OTHER MATTERS

16 Additional details to be included in annual reports of water suppliers

For the purposes of section 26(1) and (2) of the Act, the required contents of the annual report of a water supplier are—

- (a) information about actions taken by the water supplier in respect of each emergency, incident or event that has arisen that has affected—
 - (i) the quality of water supplied generally; and
 - (ii) the quality of water supplied where that supply posed a risk to human health; and

- (b) any issues that may have arisen out of the actions referred to in paragraph (a); and
- (c) a summary of every written undertaking by the water supplier accepted by the Secretary under section 30 of the Act; and
- (d) a summary of the findings of the most recent risk management plan audit and any issues that the approved auditor raised during the risk management plan audit; and
- (e) if the water supplier operates or maintains a drinking water treatment process —
 - (i) a summary of the process by which the water supplied by the water supplier is disinfected or treated and any other processes applied to the water, and any issues arising out of the application of those processes; and
 - (ii) a list of all the chemicals and other substances, and any processes, used to disinfect or treat the water supplied, or to be supplied, by it for drinking purposes; and
- (f) information evidencing compliance or non-compliance (as the case requires) with regulations 12, 13 and Schedule 2; and
- (g) information about actions taken by the water supplier when a drinking water quality standard set out in regulation 12 and Schedule 2 has not been met; and
- (h) an analysis of water sample information, data and results relating to the quality of drinking water supplied and a comparison of that information and data, and those results, with water sample information, data and results from the previous 2 financial years; and
- (i) a summary of every—
 - (i) variation in aesthetic standards approved under section 19 of the Act in respect of drinking water supplied by the water supplier and any conditions imposed under section 21 of the Act; and
 - (ii) exemption from a water quality standard approved under section 20 of the Act in respect of drinking water supplied by the water supplier and any conditions imposed under section 21 of the Act; and
- (j) a summary of complaints received by the water supplier relating to the quality of drinking water supplied and a summary of the responses and analysis of the issues arising from the complaints; and
- (k) a summary of steps taken by the water supplier to manage the aesthetic characteristics of the drinking water supplied by it, including steps taken to manage the taste, odour, clarity and pH of the drinking water supplied; and
- (l) details of any regulated water supplied by the water supplier and the declaration under section 6 of the Act in respect of that regulated water; and
- (m) details of the steps taken in accordance with section 25 of the Act.

17 Additional details to be included in annual reports of water storage managers

- (1) For the purposes of section 26(1) and (2) of the Act, the required contents of the annual report of a water storage manager are—
 - (a) information about actions taken by the water agency in respect of each emergency, incident or event that has arisen that has affected—
 - (iii) the quality of water supplied generally; and
 - (iv) the quality of water supplied where that supply posed a risk to human health; and
 - (b) any issues that may have arisen out of the actions referred to in paragraph (a); and
 - (c) a summary of every written undertaking by the water storage manager accepted by the Secretary under section 30 of the Act; and
 - (d) a summary of the findings of the most recent risk management plan audit and any issues that the approved auditor raised during the risk management plan audit; and
 - (e) if the water storage manager operates or maintains a drinking water treatment process —
 - (i) a summary of the process by which the water supplied by the water storage manager is disinfected or treated and any other processes applied to the water, and any issues arising out of the application of those processes; and
 - (ii) a list of all the chemicals and other substances, and any processes, used to disinfect or treat the water supplied, or to be supplied, by it for drinking purposes; and
 - (f) details of any exemption granted to the water storage manager under section 8 of the Act and any condition imposed in relation to any exemption.

SCHEDULES

Regulation 10

SCHEDULE 1

Safe Drinking Water Regulations 2015

RISK MANAGEMENT PLAN AUDIT CERTIFICATE

Certificate Number: *(insert a number to specifically identify this certificate from any other audit certificate issued by the approved auditor)*

Audit period: *(insert period of audit relevant to this certificate)*

To: *(insert full name and address of person who commissioned the audit)*

Australian Business Number (ABN): *(insert the business number of the water supplier or water storage manager)*

I, *(print full name of approved auditor)*, after conducting a risk management plan audit of the water supplied by *(insert name of the water supplier or water storage manager)*, am of the opinion that—

(insert name of water supplier)* *has/has not complied with the obligations imposed by section 7(1) of the **Safe Drinking Water Act 2003 during the audit period.

(insert name of water storage manager)* *has/has not complied with the obligations imposed by section 8(1) of the **Safe Drinking Water Act 2003 during the audit period.

*The details of the reasons for non-compliance are—

**insert/attach the details of the reasons for non-compliance*

Signature of approved auditor:

Date:

* delete if not applicable

SCHEDULE 2

Regulation 12

DRINKING WATER QUALITY STANDARDS

TABLE

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>
Parameter	Relevant sampling frequency for each water sampling locality	Quality standard for each water sampling locality
<i>Escherichia coli</i>	one sample per week	<p>100% of all samples of drinking water collected are found to contain no <i>Escherichia coli</i> per 100 millilitres of drinking water, with the exception of any false positive sample.</p> <p>For the purposes of this quality standard, <i>a false positive sample</i> means a sample that is found, after an analysis conducted in accordance with regulation 14, to contain <i>Escherichia coli</i> per 100 millilitres of drinking water, if -</p> <ul style="list-style-type: none"> (a) following the analysis, the water supplier has conducted an investigation, which has been conducted in accordance with any guidelines issued by the Secretary in relation to such investigations, including any timeframes for commencement and completion of the investigations, to ascertain whether the results of the analysis are representative of water in the relevant sampling locality; and (b) the water supplier has reported the results of the investigation to the Secretary, in accordance with any guidelines issued by the Secretary in relation to such reports, including any timeframes for provision of the report; and (c) the investigation has concluded that the results of the analysis conducted in accordance with regulation 14 were not representative of the water in the relevant water sampling locality because the investigation established that- <ul style="list-style-type: none"> (i) all other factors that would indicate the presence of <i>Escherichia coli</i> in that water are not present in the water in the water sampling locality at the time of the investigation; and (ii) the drinking water treatment process applied, or other specified actions taken by the water supplier, are such as would be reasonably expected to have eliminated the presence of <i>Escherichia coli</i> in the water sampling locality at the relevant time; and (iii) all plant and infrastructure associated with the water treatment process was operating to specification at all relevant times; and (iv) there were no issues arising from degradation of plant or infrastructure in or around the relevant water sampling locality that could reasonably be suspected to have contributed to the presence of <i>Escherichia coli</i> in the drinking water in that water sampling locality.

A sample analysed in accordance with regulation 14 that is found, on that analysis, to contain *Escherichia coli* per 100

Trihalomethanes	one sample per month	millilitres of drinking water is not a false positive sample unless all of the circumstances in paragraphs (a)(b) and (c) apply. less than or equal to 0.25 milligrams per litre of drinking water.
Turbidity	one sample per week	samples in any twelve month period must be less than or equal to the 95 th percentile of 5.0 Nephelometric Turbidity Units.

¹ Reg. 4: S.R.No. 88/2005