



25th October 2004

Mr Brian Labza
Public Health Group
Department of Human Services
GPO Box 1670N
MELBOURNE VIC 3001

Dear Brian

RE: SAFE DRINKING WATER REGULATIONS 2004

The Victorian Water Industry Association ("VicWater") welcomes the opportunity to comment on the Exposure Draft for Safe Drinking Water Regulations and the Regulatory Impact Statement. This submission is made on behalf of Victorian Water Authorities and Water Companies ("water businesses") operating under the *Water Act 1989* and *Water Industry Act 1994* and is endorsed by the VicWater Safe Drinking Task Group.

VicWater was established in January 1996 and represents water businesses from across the metropolitan, regional urban and rural sectors of the Victorian water industry. VicWater's mission is to provide Victorian water businesses with a strong and effective voice in their relationships with Governments, regulatory bodies, customers and community bodies and environmental management authorities.

General Comments

VicWater is supportive of the direction and intent of the Regulations in particular the risk management approach being adopted by the Department as expressed in the Regulatory Impact Statement for the Regulations.

During their development the regulations have consistently followed the principles of the Australian Drinking Water Guidelines (ADWG), which have been produced by the National Health and Medical Research Council, and represent the thinking of the peak bodies responsible for drinking water quality in Australia. However, we would like to express our concern that the current Exposure Draft for Safe Drinking Water Regulations has a number of significant deviations from the ADWG document, which we believe are inconsistent with sensible risk management of drinking water. These include the frequency of sampling and requirements to monitor for all parameters in Schedule 2 regardless of treatment type.

Victoria's water businesses have a strong record in managing Victoria's drinking water. This is highlighted by many of the businesses having accredited risk management programs in place together with all business having well established and effective water quality monitoring programs. The current exposure draft for the Safe Drinking Water Regulations is inconsistent with the practices used by Victorian water businesses in following the principles of ADWG. VicWater and the water industry remain unclear as to the reasoning of DHS in varying markedly from the accepted ADWG best practice in their draft Regulations in the areas mentioned above.

In coordinating the response to the draft Regulations, it has become apparent to VicWater that a high level of uncertainty currently exists surrounding the interpretation of the draft Regulations. It is therefore further consultation with the Victorian water industry is required by DHS to ensure consistent interpretation of the Regulations.

VicWater requests that each issue raised in this submission be responded to in writing by DHS. Furthermore VicWater seeks to view and provide further comment on any revisions to the Draft Regulations before they progress to Parliament. VicWater would value this opportunity through the VicWater Safe Drinking Water Task Group.

Specific Comments

There are a number of specific changes that we believe should be made in order to improve the Regulations. These are:

1. 3. Definitions

A "Hazard" should be defined as a 'biological, chemical, physical or radiological agent with potential to cause harm'

2. 4. Water Sampling Localities

It is recommended that the terminology "*water sampling localities*" be replaced with "*water quality zones*".

The term "*water quality zones*" is a common term that is widely recognised in the water industry and the ADWG.

3. 4. Water Sampling Localities

There is considerable uncertainty regarding how the "zones" will be designated, and whether their designation will change after the introduction of the Regulations. Until "zones" are specified, accurate costing is not possible for activities such as analytical testing, provision of sampling points and reporting. There is a need to clearly define how "zones" are to be assigned (eg. reference to ADWG). Water quality "zones" need to be assigned in consultation with water businesses.

Written confirmation from DHS is requested to ensure that the zones currently designated by DHS will continue to apply.

4. 5. Water sampling points

A water supplier may have valid cause or reason to want to reject a sampling point nominated by the Secretary. Ideally, sampling point allocations should be performed through consultation between the water supplier and the Secretary.

Therefore VicWater suggests an additional subsection to Regulation 5 be inserted to provide a mechanism for a water supplier to appeal the creation of a sampling point as specified by the Secretary.

5. 5 (2) (a). Refers to the number of sampling points not being "*greater than a number reasonably necessary to ensure that samples .. are .. representative of drinking water supplied ..*".

VicWater questions the justification for number of taps not to be greater than the number of taps required. This is particularly important because the regulations do not specify the criteria for computation of number of taps in a locality. VicWater believes that having a few extra taps will not compromise the representation of the water quality in the water sampling locality.

It is therefore recommended that 5 (2) (a) be replaced with:

"The number of taps specified as water sampling points for each water sampling locality must be a number that is reasonably necessary to ensure that samples of drinking water collected within the water sampling locality in accordance with these Regulations are, so far as practicable, representative of the drinking water supplied in that locality."

5 (2) (a). Refers to the number of sampling points not being "*greater than a number reasonably necessary to ensure that samples .. are .. representative of drinking water supplied ..*".

Guidance is also required on the number of sampling points to be sampled at defined frequencies to ensure that the data is statistically valid which will enable easy comparison across the State. The number of samples to be taken should be linked with population as stated in the drafting instructions for Safe Drinking Water Regulations (2003).

Therefore VicWater requests DHS advise the water industry in writing as to the calculations required for 5 (2) (a). It is not requested that this calculation would be part of the Regulations.

6. 5 (2) (b) "*in any case, must not exceed 100*"

The number 100 is arbitrary. It would be more effective for risk management if the number were linked to population, as per the ADWG.

It is recommended that this clause be removed.

7. 6 (1) "*a risk management plan must contain the following matters-*"

VicWater would prefer the expression "*a risk management plan must provide reference to the following matters*".

Water businesses have information that may be included in a Risk Management Plan (RMP) in separate documents. To limit the replication of information reference to the location of this information should be provided in the RMP rather than all the information.

8. 6 (2) (a) "*the risk to human health that arises from the presence in water of-*"

It is recommended that this be changed to "*the risk to human health that arises from the presence in drinking water*".

It should be noted that there are only two definitions of water in the Safe Drinking Water Act 2003 – drinking water and regulated water. To remain consistent with the Act and to provide clarity and consistency within the Regulations, it is suggested that these two defined terms are used where appropriate. The use of the word 'water' would require additional definition.

9. 11. Frequency of sampling for drinking water.

Column 1 of the Table in Schedule 2 lists the relevant sampling frequencies for the standards as either “one sample per week” or “one sample per month”. There is no mention in either Regulation 11, the Table in Schedule 2, or the definitions in Regulation 3 that these frequencies pertain to minima. This then precludes a water supplier from routinely taking more samples than the relevant sampling frequency in some or all of its water supply localities and/or including their results within reports.

Therefore VicWater suggests the insertion of the term “minimum” within Regulation 11 to describe the required sampling frequencies, or otherwise make it clear that the values in column 2 of the Table in Schedule 2 are minima eg. “at least one sample per month”.

10. 11. Frequency of sampling for drinking water.

The relatively low frequency of sampling/analysis as listed in the Table in Schedule 2 will result in the data set being too small for any summary statistical analysis to be valid.

Therefore it is recommended that written guidance from DHS is required on the frequency of sampling to ensure data is statistically valid and will enable comparisons to be made across the water industry.

11. 11 (a) Frequency of sampling for drinking water.

This Draft Regulation stipulates that a water supplier must test for all parameters in column 1 of the Table in Schedule 2.

This is a requirement to monitor for all parameters in Schedule 2 regardless of treatment type. The monitoring of particular parameters, such as the disinfection by product parameters should be related to water treatment type. The ADWG, which is based on a widespread review of the literature, indicates that these chemicals arise from process used in the treatment of drinking water and that if the process concerned e.g. ozone-based disinfection, is not used then there is no risk from these chemicals.

The requirement to undertake monitoring for all chemicals will impose a significant additional cost on monitoring, which was not included in the original cost assessments conducted by DHS. The Regulatory Impact Statement (RIS) under Section 8.1, discusses the reason for reducing the number of proposed water quality standards from 38 to the current 9. The reasoning was ‘... many of the substances in question were unlikely to be found in Victorian water supplies at levels that approached a health related guideline value...’. Thus the benefits of conducting testing on such a scale were regarded as clearly quite small in relation to these costs’.

Further to this, under 9.2, on page 42, the parameters that were selected for inclusion was standards were ‘...those which water businesses have very direct control, since they would in cases have introduced the substances in question or products that generated the substances to the drinking water’. This philosophy has not been consistently applied in the drafting of the current version of the regulations.

Therefore the monitoring of all parameters in Schedule 2 Table as stated in 11 (1) for all water sampling locations regardless of the type of treatment method is excessive. The regulation should be amended to clearly state that these parameters should only be tested when a particular water treatment process is used. The monitoring of all parameters in Schedule 2 Table will lead to unnecessary and substantial increase in operating costs to water businesses with no community benefit.

VicWater strongly recommends that 11 (1) be amended to test for parameters depending on treatment process. For example:

“Additional Standards for Supplies with Chlorine based chemicals.....”

“Additional Standards for Supplies Disinfected by Ozone.....”

“Additional Standards for Supplies Treated with Aluminium-based Chemicals..”

This method of sampling was further supported by VicWater in its response to the Safe Drinking Water Drafting Instructions (2003).

Furthermore VicWater requests that the terms “chlorine based chemicals” and “aluminium based chemicals” require better definition or rewording to eliminate any ambiguity. For example, is chlorine dioxide a “chlorine based chemical”? Is bentonite an “aluminium based” chemical? Also, there are bromine based chemicals that may be used that may cause generation of THMs and HAAs as by-products in the same fashion as chlorine based chemicals. It is suggested that these terms be replaced with “Disinfectants containing chlorine and/or bromine” and “Aluminium-based coagulants”, or otherwise the types of chemicals concerned be listed specifically.

12. 11 (2) *“relevant water sampling point”*

It is noted that there is no mention of any requirement for the selection of weekly or monthly sampling points to be random. The inability of a water business to collect from a previous water sampling point negates the random and independent nature of site selection that has historically been applied. Any random selection would then become “random sampling without replacement”, which would greatly complicate any attempt at valid statistical analysis of data. Overall the application of this draft Regulation will not be possible for small water quality zones with subsequent small number of sampling points.

13. 12. Samples of water must be analysed

This Regulation, as currently worded, does not account for inevitable situations where a sample is inadvertently lost or broken, and therefore cannot be analysed. It also does not provide provision for situations where a sample that has been taken in accordance with the Regulations is subsequently discovered to be non-representative of the drinking water supply e.g. through mislabelling or use of an improper sampling point. In these situations, it would be expected that replacement samples are taken within the required time frame. Therefore, it may be better to specify the frequency of analysis, rather than the frequency of sampling, within Regulation 11 and the Table in Schedule 2.

Therefore it is suggested that the Regulation be amended to:

“unless: (a) the sample is lost; (b) the sample container is damaged and the sample is irretrievable; (c) it becomes known or is suspected that the sample is not representative of the water intended to be tested.”

14. 11 (4) (b) “*sufficient number of samples*”

No guidance is provided as to what is the minimum number of samples that are required to be collected to ensure those samples are representative of the drinking water supplied.

Therefore it is recommended that written guidance from DHS is required on the number of samples that are required to ensure data is statistically valid and will enable comparisons to be made across the water industry.

15. 13 Accreditation of water analysts

This section should state that the registered analyst must undertake their analysis in a NATA registered laboratory, for the relevant parameters.

16. 13 New sub regulation proposed

Water businesses have experienced inconsistencies in test methods and sampling techniques that has lead to significant variations in test results. A new sub regulation should be included after sub regulation 13 to ensure that test methods are accredited

Therefore it is suggested a new sub regulation following sub regulation 13:

“A laboratory must apply to the Secretary for test methods and equipment to be accredited to conduct an analysis of samples of drinking water collected to determine compliance with the Standards outlined in Table 2 of the Regulations.”

17. 13 (8). “A person is not be prohibited....”

It is recommended that the word “to” is inserted

18. 15. Additional details to be included in annual reports

It is suggested that the term “annual report” be replaced with “water quality annual report”, as named in the Act, to avoid any confusion with corporate annual reports.

Within Regulation 15 (1) (k), we suggest replacement of the term “odor” with “odour”.

19. 15 (d) (i) “...*incident or event that has arisen that has affected-*“

It is unclear what constitutes an event. Clarification from DHS as to what constitutes an event is requested to enable comparison with other water businesses and to avoid the both the under and over reporting of incidents. It is recommended that only emergencies, incidents or events that require regulatory intervention need to be published.

It is recommended that 15 (1) (d) be replaced with:

“information about actions taken by the water supplier in respect of each emergency, significant incident or significant event that has arisen that has affected—

(i) quality of the drinking water supplied generally; and

(ii) the quality of drinking water supplied where that supply posed a risk to human health; and...”

15 (1) (h) “...*summary of complaints received...*”

It is considered that only a summary of the responses to the water quality complaints should be required rather than actual responses recorded.

It is recommended that 15 (1) (h) be replaced with:

“a summary of complaints received by the water supplier and responses provided by the water supplier relating to the quality of drinking water supplied and any analysis of the issues arising from the complaints; and..”

20. Schedule 2, Column 3

There is no mention of the Standards (excepting *E.coli*) needing to be assessed over a specific time frame.

VicWater believes that further consultation between DHS and the water industry is warranted on the most appropriate statistical approach, and consensus should be sought, prior to finalisation of the Regulations or issuing of any directives/advice by DHS.

21. Schedule 2, Table. Formaldehyde

VicWater recommends that the Formaldehyde limit be amended from "0.50" to "0.5", as stated in the ADWG.

22. Schedule 2, Table. 95% Upper Confidence Limits of 95th percentiles or means.

In coordinating the response to the Schedule 2 Table, Column 3 regarding the "Quality standard for each water sampling locality", it has become apparent to VicWater that a high level of uncertainty currently exists in the water industry surrounding the calculation and subsequent calculation of statistical information outline in Table 3.

Therefore VicWater strongly believes that further consultation between DHS and the water industry is warranted on the most appropriate statistical approach, and consensus should be sought, prior to finalisation of the Regulations or issuing of any directives/advice by DHS.

23. Schedule 2, Table, under the heading "Microbiological organisms".

The quality standard implies an absolute absence of *Escherichia coli*, irrespective of concentration.

It is recommended that this should be "per 100ml".

Once again we thank you for the opportunity to comment and look forward to you incorporating these comments into the Safe Drinking Water Regulations. VicWater seeks to view and provide further comment on any revisions to the Draft Regulations before they progress to Parliament. VicWater would value this opportunity through the VicWater Safe Drinking Water Task Group. Please contact me if you wish to clarify any points raised in this letter or if you require further information.

Yours sincerely

A handwritten signature in black ink that reads "Mark Harvey". The signature is written in a cursive style with a long horizontal stroke at the end.

Mark Harvey
Chief Executive Officer