CWWA ACEPU
Canadian Water and Wastewater Association canadienne des eaux potables et usées

April 12, 2016

CDW Secretariat
Water, Air and Climate Change Bureau
Health Canada
3rd Floor, 269 Laurier Avenue West, A.L. 4903D
Ottawa, Ontario K1A 0K9

To: Committee on Drinking Water Secretariat

RE: Cyanobacterial Toxins in Drinking Water

CWWA's Drinking Water Quality Committee reviewed the proposed guidance on cyanobacterial toxins in drinking water. Overall the Committee supports the conclusions of the document and appreciates the background information which compiles important scientific information on cyanotoxins and provides valuable advice on how utilities should react to cyanobacterial blooms.

Our Committee members did have some concerns with the document, particularly around providing the public with appropriate advice regarding reconstituting baby formula. We understand that infants are more vulnerable given the volume of water consumed versus body weight. However, the guidance document leaves room for interpretation with respect to when the public should be cautioned to use bottled water for infant formula. One part of the document recommends that the public be advised to use bottled water "*during a cyanobacterial bloom, or when microcystins are detected in finished water*" [Section 1.0 Proposed guideline, p. 2]. In another part of the document the Guidance document recommends a public advisory "*in areas where microcystins could be present in drinking water (i.e., current or recent presence of a bloom potentially affecting a drinking water intake)*" [Section 2.1 Health Effects, p. 2] Finally, in Section 11 Rationale (2nd last paragraph) it states "using the TDI derived above and applying an infant (0-6 months) body weight of 7 kg and a consumption rate of 0.75 L/day, a reference value of 0.4 µg/L can be derived for the basis of recommending alternative sources of drinking water for bottle-fed infants as a precautionary measure during a bloom event.

We recommend that Health Canada clarify their advice around public notification. For example, presumably the general public should be notified (by the local health unit?) when the 1.5 µg/L MAC is exceeded, but who is responsible for the issuance of a notification to use alternative water for baby formula? And, on what basis would a health unit or water provider provide such

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notification; when microcystin is detected in the finished water at a prescribed level (or simply above an MDL?), or merely when a cyanobacterial bloom is present, or suspected to be present? Clarifying this advice would be especially crucial in jurisdictions where public health authorities issue advisories.

Furthermore, we note that the USEPA has undertaken some work to quantify acceptable concentrations of microcystin-LR – the Ten-day HA recommended concentrations for total microcystins are 0.3 µg/L for bottle-fed infants and young children of pre-school age." While these are non-regulatory values, they seem to provide some clarification when determining risk. Consequently, would it be reasonable to suggest that Health Canada provide a value of 0.3 or 0.4 µg/L in the actual guideline (Section 1.0, p. 2)? This would change it from being precautionary to being a quantifiable concentration leaving no room for interpretation.

CWWA's concern about providing general information as a guideline is that while protecting a vulnerable populations is always a priority; issuing unnecessary or targeted advisories could lead to a lack of confidence in the public water supply, particularly when the technical information being used for communication purposes seems somewhat vague and open to interpretation.

On page 3 (Section 2.3), it is stated that "…there are no drinking water treatment systems available that are certified for the removal of microcystins." While this is technically correct at the present time we are aware that the NSF is about to release a standard for the certification of microcystin removal 'NSF P477 – Microcystins' for incorporation under NSF/ANSI 53.

Lastly, while the document provides excellent background information regarding the analysis of cyanotoxins and specifically microcystin, is there a reason for the vagueness in the approach mentioned with respect to the analysis of the latter? There are ISO 17025 accredited methods to detect and measure this particular toxin and we don't understand why Health Canada wouldn't be more specific about the accreditation requirements. For example, an accredited laboratory doesn't necessarily mean it is ISO 170125 accredited, nor does it mean it is using an ISO 17025 accredited method for microcystin analysis.

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