



July 18, 2016

Mr. Douglas Sackett
Executive Director, Council for the Model Aquatic Health Code
PO Box 3121
Decatur, GA 30031

Dear Mr. Sackett,

CDC thanks the Council for the Model Aquatic Health Code (CMAHC) for the Model Aquatic Health Code (MAHC) update suggestions based on CMAHC member voting that you sent on January 24, 2016. CDC greatly appreciates the thoughtful and detailed suggestions made by the CMAHC membership. This type of detailed reading and thinking about MAHC improvements strengthens our belief that the CDC/CMAHC partnership will continue to improve the use and importance of the MAHC and help improve the health and safety of public aquatic facility patrons and staff in the United States. CDC accepted 84 (91%) of the 92 MAHC change requests (CRs) that the CMAHC membership passed plus one editorial CR that was not passed. CDC lists those CRs that do not follow the CMAHC suggestions below and discusses the issues that arose with each. CDC asks that the CMAHC consider these responses and determine whether further elaboration or discussion with CDC is needed.

- 1) CR 1 (Glossary; Not Passed; CDC accepted CR suggestion and member comment and changed annex): This CR suggested adding a definition of "Raceway" to the MAHC Glossary but did not suggest any wording so the Technical Review Committee (TRC) recommended a no vote, which subsequently occurred. A member comment was submitted suggesting use of the National Electrical Code definition. Since this addition improves the MAHC glossary, is an Annex-only change, and because the MAHC will now have code- and annex-specific glossaries, CDC chose to make the addition rather than waiting for a future CR submission.
- 2) CR 19 (4.12.5.2.2; Passed; CDC did not accept code change): The CR as posted had an error in the voting module so members were not voting on the agreed upon TRC revision, which received a positive TRC review, rather than the original submission. CDC prefers to see this vote carried out again with the correct information posted at the next biennial conference.
- 3) CR 47 (4.7.3.3.4.1; Passed; CDC did not accept code change): This CR was listed as a clarification and the TRC recommended the change be approved. However, CR 47 significantly changes the language and intent of the MAHC relative to ozone's use for secondary disinfection. Instead of the ozone unit having to achieve 3-log inactivation in the secondary disinfection system flow, the ozone unit would now have to achieve 3-log inactivation in the main recirculation system flow. To achieve 3-log inactivation in the main recirculation system flow, the amount of ozone applied to the side stream will have to be greater than if 3-log inactivation only needs to be achieved in the secondary disinfection system flow; the intended outcome. In addition, adoption of this change will create

conflicts with three other sections of the MAHC (4.7.3.3.2.1, 4.7.3.3.2.7, 4.7.3.3.4.2). CDC chose not to make this change as it increases the amount of ozone delivered far above intent. The CMAHC could re-open the discussion for the next biennial conference to discuss these issues.

- 4) CR 54 (4.9.2.1.4.1; Passed; CDC did not accept change and deleted section): The revised language is in conflict with OSHA referenced guidance material on placement of eyewash stations. In addition, the MAHC 1st Edition wording is also in conflict with OSHA since chemical storage areas require doors. CDC asks that the CMAHC, if it is still appropriate, develop new wording as needed and as applicable under OSHA regulation. Until alternative and OSHA-compliant wording is passed, CDC cannot include language in 4.9.2.1.4.1.
- 5) CR's 64, 71, 72, and 109 (5.6.1.2.1; 5.6.8; 5.6.9.1; 6.1.3.6; Passed; CDC did not accept code changes): Each of these CRs consolidated two or more individual code items into one item purportedly to simplify the section. The MAHC was developed with enforcement and future data analyses in mind. To do this, CDC adopted a style of writing in the MAHC that listed items individually to make it easier for enforcement and for future data analyses as aquatic facility inspection data are used for tracking program impact. The consolidation suggested in these CRs, while generally not changing the intent of the code requirements, compromises the ability to identify individual items when analyzing inspection data. CDC chose not to accept these suggested changes.
- 6) CR 81 (5.7.3.1.3.2; Passed; CDC did not accept code change): The CR changed the allowable cyanurate levels based on data relating to *Cryptosporidium* inactivation. These data only pertain to this highly halogen-tolerant pathogen for which routine halogen disinfection is not an effective barrier so is not applicable for extrapolation to general operations and inactivation of chlorine-susceptible infectious pathogens. Routine operational considerations for cyanurate/stabilizer should be based on inactivation data and public health assessment and impact for chlorine-susceptible infectious pathogens, which was not included in the submission. CDC welcomes the creation of a CMAHC Ad Hoc Technical Committee on cyanurates, which will collect, review, and assess the cyanurate data and summarize its findings for the CMAHC membership. This should assist with future CR submissions and decision making. CR81, in its final form, also inadvertently removed the upper limit for cyanurate in aquatic venues with secondary disinfection systems. This means that inactivation of more UV-resistant, and chlorine-sensitive, pathogens like bacteria could be compromised in aquatic venues with secondary disinfection as cyanurate concentrations increase to high levels.

CDC is extremely pleased with the CMAHC CR process and the partnership that is being built by the CMAHC and CDC to make the MAHC the best guidance document possible. We look forward to a bright future working together on the MAHC as the CDC-CMAHC partnership ensures the MAHC remains science- and best practice-based and stays current with the latest scientific and technological advances in aquatics.