

Model Aquatic Health Code (MAHC)
STEERING COMMITTEE

MEETING MINUTES
AUGUST 1-2, 2007
ATLANTA, GA

Members Present: Michael Beach, Bart Bibler, Steven Goode, Joe Hunsaker, John Linn, Amanda Long – Assistant to the Director, David Ludwig, Chuck Neuman (8/1), Charles Otto, Doug Sackett – Director.

Members Absent: Chip Cleary, Chuck Neuman (8/2).

- All members present signed the Steering Committee Code of Ethics.
- The June 26, 2007 minutes were accepted with one correction, and the July 13, 2007 meeting minutes were accepted as is.
- Detailed meeting minutes will be posted in the secure steering committee area of the web forum. A summary of decision points will be posted on the MAHC website.
- Discussion of 'code' vs. 'standard'. Project title will be 'Model Aquatic Health Code' (MAHC); 'Risk Reduction Plan' will be used as the subtitle.
- Corrections and comments to the MAHC Project Outline were discussed. Revisions will be made, it will be sent out for comments a final time, and then posted as a draft on the MAHC website.
- MAHC Format Suggestions and Process:
 - Do not repeat code items adequately covered elsewhere (e.g. in the Uniform Code); do provide references to them in the MAHC.
 - MAHC should be less prescriptive and more performance based. Consider if prescriptive guidelines should be provided for people who do not have the knowledge or time to operate using performance-based standards. In some instances prescriptive standards may be appropriate. Establish criteria for reviewing performance based standards, develop wording to place the burden of proof on the engineer of record, and dictate the support documentation required.
 - Pathogen-related (infectious disease) safety issues should be initial focus, as aquatics field has not kept up. Follow with safety design.
 - Look at how components such as facility operators, patrons, and physical facilities/equipment fit into each category and the entire process.
 - Define safety. Items should go through a review process to determine if they are actual safety issues; only design aspects connected to public health and safety should be included in the MAHC.
 - Consider facility design based on observed behaviors.

- Regulatory officials are the tertiary audience; main audience is designers and operators. Public health officials are the ‘auditors’.
- Give clear guidance for operators, determine maintenance and replacement recommendations for facility equipment.
- The first priority is a knowledgeable manager and the second is monitoring to ensure the equipment operates correctly.
- Review existing codes, determine items that are universally important - outline everything that could be included and then prioritize.
- Include a ‘how to’ guide in the appendix for health jurisdictions that are considering implementing codes, called the ‘Guide to Implementation’.
- Consider including sections for ‘Objectives’, ‘Products’, ‘Operation of Products’, ‘Water Quality’, ‘Safety’, a Glossary, and an appendix citing research and references.
- Create a skeleton document/ Strawman.
- Include the Risk Reduction Plan in the MAHC.
- User-friendly format: easy to read and reference, modules in a common format, well-organized, clear, simple, uniform number system, limit repetition (unless needed to be user-friendly).
- Address various types of venues (pools, spas, spray grounds, etc.).
- Organizing the MAHC by topic will make it easier for the steering committee to develop the model code but harder for the audience to use.
- Organize code by three major categories: Operation & Maintenance, Policies & Management, and Design & Construction, then by topic area.
- Use a brief descriptor for each category heading. Have a disclaimer in the design section stating that MAHC will only address aspects of design that could affect public health and safety.
- Publish the code online in a format where users select how to organize the code either by venue type (pool, spa, etc.) or by category (design and construction, operation and maintenance, etc.). Have built-in mechanisms to ensure that when people do a search they get all applicable information.
- Address all aspects of each topic – it may fit into more than one category.
- Ultimate goal is a complete document that is easily modified and nimble; in the meantime publish short modules that address various key issues.
- Use current best practices as an interim model code that will evolve into a more knowledge-based code with science and research. Lay out puzzle and replace pieces instead of assembling the puzzle piece by piece.
- Do a literature review and research for best practice recommendations. If needed, state that standard is a current best practice but has major flaws.
- Clearly state why language was chosen and how it is defensible.
- MAHC Categorization language to rate each module by a letter grade:
 - E. No generally accepted practice. Proposed language not yet supported by research or historical data. Significant review will occur and possible changes in the future anticipated.
 - D. A generally accepted practice not supported by research or historical data. Significant review will occur and possible changes in the future anticipated.

- C. A generally accepted practice supported by research or historical data. Further review will occur but significant changes not anticipated.
- B. Proposed Model Aquatic Health Code Language. Final review to occur with only minor changes anticipated.
- A. Completed Model Aquatic Health Code language. Future revisions will occur as new information becomes available. [Maybe only allow the steering committee to designate as A, use 'Pending A'']
- It may be possible to get some modules out quickly that include more than just best practices; others will take longer.
 - Use table of contents to describe future modules and use an overarching format so the audience can see how pieces fit into the overall document.
 - If model code was adopted by reference and the standard changed only the original adopted document would hold up legally; revisions would not.
 - Use process similar to CFP when updating the code. Important to have a well institutionalized system for making changes so people feel included.
 - Eventual goal is a stand-alone foundation that would update MAHC.
 - Use professional code writer?
 - Nimble and efficient steering and technical committees.
 - The technical committees can evaluate item and return best practices and ratings for that item to the steering committee to review and issue. Additional research can be conducted and/or technical committee expertise can be used to modify the item. Then officially release document. All modules will be evaluated as developed in the context of other modules, and turnaround for assessment should be short.
 - Post MAHC Project Outline as draft with a request for public input.
- Steering committee:
 - Review the diagram of the model code and discuss the parts and contents. Define, categorize, and prioritize modules. Identify topics that may not be in code yet.
 - Discuss how to respond to the public.
 - Keep process open; ensure adequate representation from all groups.
 - Review standards: NSPI 9, DIN, EPA's 1986 Water Quality Guidelines.
 - Maintain editorial control over MAHC.
 - Determine host for model code document.
 - Try to stay ahead of the model code getting outdated.
 - Prioritize technical committee research agendas, look for grant funding.
 - Address technical committee work expectations and length and duration of commitment (term length).
 - Determine host for technical committee conference calls (CDC for now).
 - Consider expertise needed for technical committees.
 - Recruit technical committee members: consider how to approach members, how to describe project, what they will gain as members.
 - Look in individual contacts to find potential technical committee members.
 - Determine technical committee structure and topics, form committees.
 - Determine steering committee member liaisons to technical committees.

- Discuss how to present MAHC project to the technical committee and how technical committee will create draft document in a common format/layout.
 - The more that can be done ahead of time to ensure the product submitted by the technical committee is in the right format the better.
 - Try to designate technical committee chairs before the WAHC.
 - Look for more funding for travel for steering/technical committee meetings. The host for the funding should be neutral, such as the CDC Foundation.
 - Determine timelines for technical committees.
- Technical Committees - Structure and Set-up:
 - Set up technical committees by topic area and areas of expertise.
 - Members will be experts in their field.
 - Steering committee will determine technical committee chairs.
 - Technical committee would be instructed to determine research needs for their topic; however, there is no funding for research in the NSPF grant.
 - Technical committees should be concurrent and share information.
 - Start with two or three technical committees and see how things go.
 - Technical committees could take the Strawman [compilations] of existing codes and form appendices on the scientific reasoning behind code items.
 - Technical committees will function primarily through conference calls, which should occur at least monthly.
 - Suggestion to keep process simple by having a larger number of committees that would come together and address small topics quickly.
 - Limit number of committees active at the same time to ten or so, since it would be impossible to manage one for each topic (50 topics) at once.
 - Role, if any, of subcommittees?
 - Consider workload and tasks delegated to technical committees and amount of responsibility.
 - Reporting to steering committee: technical committees should release a report on a regular basis which includes meeting summaries and module drafts to post to the MAHC website.
 - Vote on items as 'for' or 'neutral'; final resolution by steering committee.
 - Technical committee members would be listed on the MAHC website.
 - A minimum of 6 and a maximum of 15 members will be allowed to serve on a technical committee.
 - Each technical committee should try to represent the six sectors: regulator, designer, operator, supplier, consumer, and academic. It would be recognized that with the logistics involved not all sectors may be represented on every committee. One sector cannot represent more than half of the members. The steering committee can limit the size of a technical committee if too many members represent a single sector.
 - Each technical committee would have a chairperson who is an expert in the field and also has good leadership skills. The chairperson would send a list of technical committee members to the steering committee for approval and would need approval to have subcommittees. Chairperson will not be a supplier. All chairs will be required to designate a vice-chair.

- Technical committee chairs will meet with the steering committee.
 - Terms of technical committee members should be relatively short. It would be important not to change chairs in the middle of the process. There will be no set length of term for technical committee chairs, and chairs could change when the process is created for ongoing revisions, since technical committees will exist through the project's duration. Members will be expected to serve through the project's end (revision process is separate). Former members can provide input in the same way as the public.
 - Each technical committee will have a steering committee liaison.
 - The steering committee will provide the framework for the modules and give feedback on draft language. The technical committee should focus on technical content and not get too bogged down in the editorial function.
- Technical Committee Areas:
 - The steering committee decided to have the following technical committees: 1) Design & Construction, 2) Operation & Maintenance, 3) Policy & Management, 4) Public Education/Outreach, 5) Model Regulatory Program, 6) Water Quality Parameters, and 7) Water Treatment/Recirculation [water treatment consists of disinfection and filtration].
 - Each topic will be reviewed with respect to the three major categories.
- Tasks for Technical Committees:
 - Determine aspects of each topic to include under each category (Construction & Design, Operation & Maintenance, and Policies & Management). Most topics would fall under all three categories.
 - Back up decisions with science and data.
 - Address all types of pools: indoor/outdoor, spas, therapy, wading, spray grounds, slide pools, leisure rivers, etc.
 - Progress reports to steering committee, frequency of reporting (monthly?). Additional input mechanisms?
 - Determine a workplan.
 - Determine and assess best practices, conduct literature reviews, identify research needs, and write model code language. Rank modules by universal criteria until replaced by new language. Use a coversheet that includes the assessment and identifies code compilations vs. new model code language for each module. Cite data in appendix to module.
- Public Involvement:
 - Anyone can provide input into the process.
 - Public should give rationale and supporting data behind their suggestions.
 - Post statement on the MAHC website stating in the initial development phase the steering committee will look at all comments but may not respond to them (this would not apply to the revision/updating process). This statement will read: "Thank you for the submission of your comments. All comments received will be reviewed, and if supported by

- scientific data, historical facts, or a persuasive argument will be taken under consideration by the full technical committee. Due to the volume of comments received, the Committee regrets that it is not possible to respond to each one individually.”
- Set up standardized way to accept comments through MAHC website. It may be possible to set up a mechanism to send an auto-response when comments are submitted.
 - Potential for annual reviews by technical committees to discuss comments and suggested edits without having to respond to every comment.
 - Make sure public understands that model code items can be revised.
 - Public access to updates on the model code (progress reports, etc.).
 - Steering committee needs to allow time and effort to respond to feedback after modules are released.
- Concerns:
 - Will model code be enacted by agencies without being watered down?
 - Format: If designers only look at design section they may miss operational ideas that relate to design: a bridge between sections would be needed.
 - Would it be a disservice to put something out there that may be the best practices but is not the best product for public health officials to adopt?
 - Is entire finished product preferred to releasing a few modules at a time? Would model code be disjointed if presented as modules?
 - How many pieces are needed before people consider adopting the code?
 - Use concurrent technical committees to determine best practices instead of prioritizing technical committee formation based on priority modules?
 - Steering committee members should not be overburdened.
 - Group technical committees by broad categories or split by individual topic? Would lumping lead to too much work and delay release of MAHC?
 - Concern about adding on another layer of people and possibility of lengthening the process if subcommittees are used.
 - Concern about length of time going back and forth between technical committee and steering committee to edit the model code language.
- World Aquatic Health Conference:
 - Presentation will be a summary of the project thus far. It will be brief to allow extra time for questions. A sign-up sheet will be available for those interested in serving on a technical committee, create a list of technical committees for this.
- Priority MAHC Topics:
 - Filtration/recirculation: Turnover/flow rates; Basic design; Co-filtration.
 - Water Quality Parameters: Disinfectant levels; pH (lower values); Stabilizer; Combined chlorine (organic/inorganic); TDS; ORP/controllers; Alkalinity; Hardness; Turbidity.
 - Disinfection: UV and ozone; Controllers; Indoor vs. outdoor pools; Other devices and chemicals.

- Training: Operator/staff; Inspectors.
 - Safety Design: Water features (nozzle velocity, dump volumes); Entrapment issues.
 - Policies: Fecal accident; Employee health; Records; Chemical handling; Communication plans.
 - Inspections: Standard data set; Set public health hazards and closure criteria; Reporting; Define health jurisdiction purview.
 - Design: Lighting; Pool color; Ventilation.
 - Operation: Lifeguard staffing.
 - Consumer awareness: Risk perception; Education; Signage; Information dissemination; Parental responsibility.
 - High risk venues: Develop design criteria; Incomplete filtration/treatment; Kiddie, spray, therapy.
- Timeline:
 - A lot of pressure for a quick turnaround on the MAHC project. This is where the low hanging fruit is important.
 - Suggestion to release some modules within 6 months, particularly those which would benefit public health the most.
 - Suggestion of setting goal for October 2008 for completed Strawman (draft that includes code compilations and generally accepted practices).
- CDC Team Web Forum and MAHC Website:
 - Short CDC Team web forum demonstration.
 - Technical committees will be given their own discussion space on web forum.
 - A section for draft language should be located on the MAHC website to eliminate the need for the public to have CDC Team user accounts.
 - Develop method for public comment on MAHC website.
- Next steering committee meeting is October 2nd from 8:30 to 11:30 AM EDT.
 - Potential conference call in early September. The 2:30 to 4:00 PM time slot tends to work best. Maybe set a fixed time for a monthly conference call.
 - Next steps: meeting notes, modifying documents as discussed, finalizing MAHC project outline, outlining 'marching orders' for the technical committee. Draft letter for potential technical committee members similar to steering committee nomination form. Steering committee members will forward letter to their contacts who are potential technical committee members. Revise technical committee rules of engagement with edits discussed. Send out potential dates for next conference call.