

Public Comments and Responses for Facility Maintenance and Operation Module Code and Annex after the First 60-day Review Period

Informational Copy: NOT Open for Public Comment

1. Jim Dingman, Underwriters Laboratories (Northbrook, IL)

- *Comment:*
5.4.1.1.1 -- If “less than” 7 days is included, there is no reason to include any time frame in the section. Also correlates better with subsequent sections. -- The AQUATIC FACILITY shall be maintained in safe condition during planned or seasonal closures of more ~~or less~~ than seven days.

Changes made to Code/Annex:

Agreed. Addressed to clarify provisions for “Short closures” (less than 7 days) and “long closures” (7 days or more).

- *Comment:*
5.6.3.5.8 -- Since the majority of such bonding systems are underground, in concrete, or otherwise inaccessible, it is unreasonable and virtually impossible to verify continuity of the system. Also, who is going to be responsible to insure that the building inspector actually inspects these systems every 5 years? This is unenforceable and unrealistic. -- Delete entire section.

Changes made to Code/Annex:

Agreed. Addressed. Deleted this section.

2. Adam Peper, City of Ballwin (Ballwin, MO)

- *Comment:*
5.12.5.2 -- This code for spraygrounds insinuates that all spraygrounds have a drain that strictly drains to storm/sanitation. This is not the case for most spray grounds, at least I have yet to see a spray ground constructed in this manner. This code should indicate that if no storm/sanitation drain is available on a sprayground, then debris or matter that is cleaned should be washed/rinsed to the nearest deck drain or removed in another manor that prevents the contaminates from entering the treatment tank.

Changes made to Code/Annex:

Agreed. Addressed to clarify where water should drain.

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- *Comment:*
5.6.1.1.4 -- Cracked lenses on all lights shall be replaced before the POOL reopens to patrons. – **Does this suggest that the pool has to be closed when lenses are cracked on lights? This should be clarified**

Changes made to Code/Annex:
Agreed. Clarified

- *Comment:*
5.6.1.2.1 -- The operator shall assess and document glare conditions throughout operating hours during the day and season. **Do these documents need to be maintained in any fashion for any length of time? If they do find glare conditions, what standard should they be assessing against and what glare mitigation should take place?**

Changes made to Code/Annex:
Agreed. Clarified to say “assess” instead of “document”

- *Comment:*
5.6.3.2.1 -- The installation of new electrical receptacles shall be deemed new construction, and thus subject to electrical-construction requirements of this CODE and applicable local CODE. **Is this anywhere in the aquatic facility, or near the aquatic venue, or in the mechanical room?**

Changes made to Code/Annex:
Agreed. Deleted “considered new construction” to clarify that putting a new receptacle in does not incur all new upgrades needed for new construction. Yes, this provision applies to anywhere in the facility.

- *Comment:*
5.6.3.3.2 & 5.6.3.3.3 -- For permanent aquatic facilities, required GFCI devices shall be tested monthly as part of scheduled maintenance. **Does any record need to be maintained for this or is it included for general best practice?**

Changes made to Code/Annex:
Addressed in Annex

- *Comment:*
5.6.3.5.5 -- Bonding conductors, where accessible, shall be inspected semi-annually as part of scheduled maintenance. **Does any record need to be maintained for this or is**

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it included for general best practice?

Changes made to Code/Annex:
Addressed in Annex

- *Comment:*
5.6.3.6.1 -- Extension cords shall not be used as a substitute for a required receptacle.
What is a required receptacle – what dictates how many receptacles should be provided and where? Should this say: Extension cords shall not be used as a substitute for a permanent and accessible receptacle?

Changes made to Code/Annex:
Agreed. Clarified

- *Comment:*
5.6.7.1.2 -- Potable **drinking** water shall be available at all times to BATHERS.

Changes made to Code/Annex:
Agreed. Redundant wording removed

- *Comment:*
5.6.9.3.1 -- *Existing state or local codes – Section 3.2* -- DECK areas shall be maintained free from obstructions, including patron seating, to preserve space required for life saving and rescue. **Is there a specified distance that needs to be maintained? Colorado: The deck areas of all pools shall have a minimum of five (5) feet of unobstructed deck width measured from the water's edge. – REFERENCE: COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT Water Quality Control Division 5 CCR 1003-5 STATE BOARD OF HEALTH REGULATIONS PERTAINING TO SWIMMING POOLS AND MINERAL BATHS**

- *Changes made to Code/Annex:*
Deck definition has been added to glossary.

- *Comment:*
5.6.9.3.4 -- DECK areas shall be kept free of debris, vermin, **and potential** vermin harborage and cleaned daily --

Changes made to Code/Annex:
Disagree – ANY place is a “potential harborage”

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- *Comment:*
5.6.10.1.2 -- Diving boards shall be inspected daily for cracks and loose bolts with cracked boards removed and loose bolts tightened immediately. **Does a record of this need to be maintained in the facility?**

Changes made to Code/Annex:
Addressed in Annex

3. Ron Sutula, Schlitterbahn Waterparks (Galveston, TX)

- *Comment:*
5.4.2 -- *The entry is opinionated and presumptuous* -- Omit “Aquatic facilities need increased maintenance and monitoring”... What is the basis of the submitted language??

Changes made to Code/Annex:
Not in current version; this code section has been removed.

- *Comment:*
5.5 There is nothing to review? How about a procedure for evaluating cracks?

Changes made to Code/Annex:
This section is a placeholder to keep chapters 4.0 and 5.0 consistent. For information about the pool shell, please see MAHC section 4.0, Design and Construction Module.

- *Comment:*
5.6.9.1.2 -- *The entry is opinionated and presumptuous* -- Omit “drinking” Omit “ Some venues now have to consider “swim-up” bars which can also contribute to drowning caused by excessive alcohol consumption.” What is the basis that this occurs in controlled licensed facilities where patrons are served by certified attendants?

Changes made to Code/Annex:
Agree partially. Have altered wording to discuss alcohol use in the pool in designated areas and suggestions for bathroom breaks to limit combined chlorine formation. Altered “can” to “may”. Alcohol is well documented to increase risk of drowning and injury so highlighting this for lifeguards is suggested and warranted.

- *Comment:*
5.6.10.1.2 – Omit. What evidence supports this?

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Changes made to Code/Annex:

The MAHC TC was unclear about what this comment is asking. As listed, the section discusses cracked diving boards and loose bolts – an important safety hazard that must be attended to immediately.

- *Comment:*

5.6.10.6.2 -- *It is not prudent for a facility with multiple venues to close the entire facility to remedy a situation that might occur at a single venue pool* -- Vacuuming shall only be done when the Aquatic Venue within the Facility is closed

Changes made to Code/Annex:

Agreed. Changed “facility” to “venue”.

- *Comment:*

6.4.1.3.6 -- *Clarifying the intent of the original wording of #5 -- 5) Is reported by a patron to the facility after the incident falling under the above criteria.*

Changes made to Code/Annex:

Yes.

- *Comment:*

5.6.3.1.3 – Why is overhead wiring distinguished from any other wiring associated with a pool? All wiring should code

Changes made to Code/Annex:

Agreed. Changed to include all electrical wiring.

- *Comment:*

5.6.3.4.4 – Who is a “qualified person”? Implication by saying this is that other repairs do not have to be made by a qualified person. I would suggest that all electrical repairs be performed by licensed electrician.

Changes made to Code/Annex:

Added definition to Glossary.

- *Comment:*

5.6.3.6.1 – Suggest defining what a “required receptacle” is.

Changes made to Code/Annex:

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Addressed – clarified use of extension cords.

Comment:

5.6.3.6.3 – *Unclear. What is the intent?*

Changes made to Code/Annex:

Agreed. Intent is to prevent the extension cord from reaching the water. Code language was modified to make this clear.

Comment:

5.6.10.1.2 – *Is it the intent of this code to ban swim-up bars?*

Changes made to Code/Annex:

Commenter was referring to MAHC Section 5.6.9.1.2. Swim-up bars are not prohibited in the MAHC, but the committee does prohibit eating and drinking inside the aquatic venue water outside designated areas. Wording has been added to clarify .

- *Comment:*

5.6.9.3.2 – *Approved by whom/what?*

Changes made to Code/Annex:

Addressed. Changed to clarify approval by authority having jurisdiction (AHJ).

- *Comment:*

5.7 to 5.11 – *There is nothing to review?*

Changes made to Code/Annex:

These sections have been reserved for other technical committees to draft.

4. Jennifer Hatfield, APSP (Sarasota, FL)

- *Comment:*

5.4.1.1.1 – *Current language is not clear, either will need to be, “A closure of 7 days or less” or “7 days or more” since that 7th day would be an un-described day. – “The AQUATIC FACILITY shall be maintained in safe condition during planned or seasonal closures of more or less than seven days.” or another option would be: “The AQUATIC FACILITY shall be maintained in safe condition during planned or seasonal closures of more or less than seven days.”*

Changes made to Code/Annex:

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Addressed to clarify provisions for “Short closures” (less than 7 days) and “long closures” (7 days or more).

- *Comment:*

5.4.1.1.2 – *If the intention of this requirement is to prevent drownings, then if a fence with a locked gate is sufficient protection during the off-hours of summer nights, it should be sufficient during extended times of closure as well.* -- The water in an AQUATIC FACILITY closed for more than seven days shall be drained or, an approved safety cover that meets ASTM F1346-91 shall be installed, or access to the pool area should be limited to employees working at the facility.

Changes made to Code/Annex:

Agreed. Clarified to say “...facilities with uncontrolled access...”

- *Comment:*

5.4.1.1.2 – *This cover language can have significant impact on pool operations. There are a number of locations in the country that based on expansive soils and high water tables would create a dangerous condition if the pools are required to be emptied regularly. Many of these pools are significant in size and a mandated solution such as a pool cover could have significant financial impact. To design a pool structure to ACI 3350 structural standards (to help prevent a pool shell from “floating”), the approximate cost premium would be 30%. And if the pool would be required to be drained then a sump or other dewatering system would need to be designed into place for most pools. For a traditional 60’ x 75’ pool, this cost premium would be around \$130,000 per pool. If this is expanded nationally assuming only 500 outdoor pools are built each year, that would be an additional \$65M in construction costs. I want to use our resources wisely and I’m concerned that we may be pricing ourselves out of building future facilities due to regulations like these. Is there any data to cite on drownings in outdoor pools in the winter? I would suspect that the vast majority would occur in the summer months which this code section is not addressing. Logically, I would not assume that many kids are breaking into facilities during the winter to go for a swim in 45 degree water. This issue may also be addressed through the fencing requirements of the facility.* -- The water in an AQUATIC FACILITY closed for more than seven days shall be drained or an approved safety cover that meets ASTM F1346-91 shall be installed.

Changes made to Code/Annex:

Agreed. Changed similar to suggested wording.

- *Comment:*

5.4.1.1.3 – *Is there any data to indicate that there is a problem with water in a closed pool that is properly secured? If this is going to be a requirement, a minimum turnover*
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rate should be required. It seems logical to have a turnover rate slower than when the pool is occupied to maximize efficiency. It's estimated that on average, operating costs annually and 8 lane 25 yard pool would have chemical and utility costs in the off season in the \$20,000 range. -- The water in an AQUATIC FACILITY closed for more than seven days that is not drained shall be recirculated and treated to assure water quality parameters meet the criteria of this CODE.

Changes made to Code/Annex:

Agreed. If you can control the access to the venue, then there is no need to maintain the water chemistry. The code has been changed to specify facilities "with uncontrolled access."

- *Comment:*

5.4.1.1.4 – Is there any data to indicate that there is a problem with water in a closed pool that is properly secured? If this is going to be a requirement, a minimum turnover rate should be required. It's estimated that on average, operating costs annually for chemical and utility costs in the off season would be \$20,000. -- The water in an AQUATIC FACILITY closed for seven days or less shall be recirculated and treated to assure water quality parameters meet the criteria of this CODE.

Changes made to Code/Annex:

Agreed. If you can control the access to the venue, then there is no need to maintain the water chemistry. The code has been changed to specify facilities "with uncontrolled access."

- *Comment:*

5.6.10.3.4 – There is confusion here as to whether blocks can prohibit use by covers/cones or if they must be removed. -- Covers or cones shall be used to deter access and designate when use of starting blocks is prohibited or blocks shall be removed per 5.6.10.3.5.

Changes made to Code/Annex:

Agree. Language added to this section to specify "permanent" blocks. If blocks are removable, they should be removed per 5.6.10.3.5.

- *Comment:*

5.6.10.3.5 – There is confusion here as to whether blocks can prohibit use by covers/cones or if they must be removed. -- Removable starting blocks shall be removed at all times when use is prohibited or blocks shall have cones or covers placed on top per 5.6.10.3.4.

Changes made to Code/Annex:

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Addressed. Covers can still be stood and climbed on. Language changed to state, "Starting platforms designed to be removable shall be removed at all times when use is prohibited."

- *Comment:*

ANNEX 5.4.2 – *Do pool designers have a requirement based on engineering industry standard to provide a maintenance plan?* -- A preventive maintenance plan is a necessary and important part of any pool operation. The best maintenance plan is one that follows the manufacturer's and ~~pool designer/engineer's~~ recommendations for all equipment.

Changes made to Code/Annex:

Disagree. Yes, designers are required to provide a maintenance plan. Disagree with suggested change. No change made to Annex.

- *Comment:*

ANNEX 5.6.3.3.1 – *Requiring chemical feed pumps to have a GFI could be problematic due to failure because of corrosion.* -- Exception (c): Otherwise approved chemical storage spaces containing small motors and the associated controllers, such as those for exhaust-blowers and peristaltic pumps shall be acceptable where such motor circuits are protected by GFCI.

Changes made to Code/Annex:

Unclear what change is suggested. MAHC TC feels it is not best practice to have chemicals in an equipment room.

- *Comment:*

ANNEX 5.6.3.3.1 – *Conduit can be properly and safely run through these spaces. This shouldn't be in the annex for fear of misinterpretation or enforcement.* -- ~~Pool chemicals, acids, and fertilizers, salt, oxidizing cleaning materials and other corrosive or oxidizing chemicals shall not be stored in interior spaces where electrical conduits enter or pass through the space~~

Changes made to Code/Annex:

Agreed. Changed "shall" to "should" in Annex.

- *Comment:*

ANNEX 5.6.3.3.1 – *In my opinion this is not the industry standard and there is no science referenced to suggest this requirement. This shouldn't be in the annex for fear of misinterpretation or enforcement.* -- ~~Where the isolation of an interior storage space~~

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~~containing such chemicals from other interior spaces containing combustion devices depends on an interior door, such door shall be gasketed to prevent the passage of air, fumes, or vapors, and shall be equipped with an automatic door closer and an alarm that will give notice if the door remains open for more than five minutes. Function of this alarm shall be confirmed monthly as part of scheduled maintenance. Failures of door gasketing, or of the door closer, or of the alarm shall be repaired immediately.~~

Changes made to Code/Annex:

Addressed. All “shalls” have been changed to “should”

- *Comment:*

ANNEX 5.6.7.3 – *This could have negative consequences regarding TDS and organic loading. Is there science behind this practice? I've never seen it done and the MAHC shouldn't be experimenting if there aren't sound implementations in the field. This may be better tackled on a variance application basis.* -- Add discussion about treatment of backwash water for reintroduction to the pool as a water conservation effort – still done in accordance to local building codes... as future potential code implementation. In some venues backwash water may be recycled instead of wasted in order to conserve water. This water must be treated in accordance with local code requirements prior to being introduced back into the venue.

Changes made to Code/Annex:

Agreed. Wording has been added to clarify that re-cycling does not mean back into the pool vs. other uses such as irrigation or other non-potable uses.

- *Comment:*

ANNEX 6.4.1.1 – *It's typically not reasonable for the pool engineering firm to have a role in review of the O&M manuals, but not to provide them. It's typical for this to come from the contractor.* -- The facility design consultant can provide valuable assistance with review preparation of a manual based on their knowledge of the physical system. The facility owner/operator must provide their preferences for operation and maintenance activities, based on location, climate, programs, budget, etc

Changes made to Code/Annex:

Disagree; Design engineer should provide operating manuals, including manufacturer manuals for all equipment.

- *Comment:*

5.6.10.4.4 – *The use of the term "slide lines" is confusing. Does this include slide piping, slide runouts?* -- Disinfectant levels shall be maintained in all slide lines susceptible to holding stagnant water.

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Changes made to Code/Annex:

Addressed. Wording has been removed from this section.

- *Comment:*

5.12.5.2 – *This is physically very difficult and/or will require double piping with plugs or some other system.* -- When cleaning the SPRAYGROUND, all materials and CONTAMINANTS on the surface of the SPRAYGROUND shall be flushed to waste and not discharged into the SPRAYGROUND treatment tank.

Changes made to Code/Annex:

Addressed to read “When cleaning the sprayground contaminants shall be removed or washed to the sanitary sewer. If no sanitary sewer drain is available then debris shall be washed/rinsed to the nearest deck drain or removed in a manner that prevents CONTAMINANTS from reentering the spray ground.”

- *Comment:*

Glossary “Deck”— *The proposed definition should be expanded to include all areas where bathers may be expected to walk barefoot. This would include bathrooms, dressing rooms, shower areas, etc.* -- Deck: Change to: Walking Surface: means any surface used as a direct access surface for a pool area and the walking surface’s change room facilities where the user is barefoot. – **REFERENCE:** WAC 246-260-010(3)

Changes made to Code/Annex:

Disagree; That would mean the “deck” is in bathrooms, parking lot.

- *Comment:*

5.4.1.1.2 – *We have several facilities that have a spa open year around and an adjacent swimming pool that is closed for part of the year in the same enclosure area* -- Add following: “or is posted with a sign stating that the pool is closed; and the pool meets water clarity standards. – **REFERENCE:** WAC 246-260-141(2).

Changes made to Code/Annex:

Added “with uncontrolled access” to code item to clarify access parameters. There must be an appropriate enclosure or operators must maintain water clarity standards.

- *Comment:*

5.6.3 – Electrical: While our statutory authority includes safety in the requirements, we generally recognize the state electrical inspection process through our department of Labor and Industry as having primary authority in this area. When we find a problem at a facility that we believe may be a violation of electrical codes, we send a letter to the

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chief electrical inspector and they will evaluate and take actions. If the intent of this portion is to raise our level of awareness of electrical issues, that has some value, but I think in our state to enforce on these issues will cross a line of authority.

Changes made to Code/Annex:

Unclear what the commenter is asking. The MAHC also defers to electrical code but wants to include specific wording to highlight key issues..

- *Comment:*

5.6.10.3.2 – *ARC establishes a minimum 9 feet as a safe diving depth. The training provided for swim coaches is very thorough on a progressive training regimen to ensure persons are properly trained before entering the starting blocks. Current language is not as definitive.* -- Suggest following replacement language: “If water depth is less than 9 feet, starting blocks must be removed or covered with protective equipment unless used by competitive swimmers trained in proper use of starting blocks.” –

REFERENCE: WAC 246-260-041(6)(b)(ii) American Red Cross Safety Training for Swim Coaches

Changes made to Code/Annex:

This section of the code discusses use of starting blocks by non-competitive swimmers, not depth. To clarify, the ways to close the blocks for use have been made sub-bullets under 5.6.10.3.2.

- *Comment:*

5.12.3.2 – *Concern with catastrophic injuries with the depths noted.* -- When a moveable floor is installed into a diving POOL, and the minimum water depth for diving is shallower than the minimum required water depth of ~~114 inches (3m)~~, established by the current standards in FINA, US Diving, or USFHS then the diving boards shall be not be used. – **REFERENCE:** “Head and Neck Injuries in Sports” (Earl Horner) pg 66.

Changes made to Code/Annex:

This section has been moved to Facility Design and Construction where it is being altered to be consistent with revised MAHC guidance on diving depths.

- *Comment:*

6.4.1.1.2 – *Broaden aspects of the manual to incorporate more safety aspects.* -- The manual shall include, but not be limited to:

- a. Physical pool facility components, water quality & signage
- b. Personnel
- c. User & spectators
- d. Emergency response provisions

e. Environmental conditions, ~~basic information, chemical data, and operation and~~

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~~maintenance policies and instructions, including fecal/vomit and body fluid contamination response protocols, about each POOL, spa and spray ground feature at the facility.~~ — **REFERENCE:** WAC 246-260-131(1)

Changes made to Code/Annex:

Disagree. The MAHC TC felt this is a good opportunity for future research because it is difficult to be prescriptive, and they can't conceive of every issue. Aquatic Facilities have the freedom to add more components as they deem necessary.

- *Comment:*

6.4.1.3.4 – Support the concept, but requiring daily recording all this data will create pushback from owner/operators. I could see item 2 for outlet and item 4 and maybe adding for proper barrier door/gate closure. – **REFERENCE:** Issues we ran into when writing our rule and established monitoring requirements for recording and monitoring.

Changes made to Code/Annex:

Addressed. Clarified language in Annex. Specified what items require daily records, but facilities may choose to record additional items.

- *Comment:*

5.4.1.1.1 – *No definition. No real manner of enforcement of opinion* -- What constitutes "safe condition"- too vague need a definition or remove.

Changes made to Code/Annex:

Addressed. Clarified with "free of hazards to workers and secured during off hours."

- *Comment:*

5.4.1.1.3 – Cost analysis is needed to consider the ramifications.

Changes made to Code/Annex:

Addressed. Language changed to specify "uncontrolled access". If venue is secure, the water quality requirements are not necessary.

- *Comment:*

5.4.2.1.2 – Overly broad. Has anyone considered that the amount of information that would be required to meet this entry at a large water park would be an issue

Changes made to Code/Annex:

Disagree. Large water parks still need to have this information available. TC considers this is an industry standard practice.

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- *Comment:*
5.4.2.2.2 – Way too broad....could include toilet paper dispenser like items. Define it down or remove

Changes made to Code/Annex:

Addressed. Clarified to mean mechanical equipment associated with the aquatic facility.

- *Comment:*
5.4.2.2.4 – Same as above...define what equipment

Changes made to Code/Annex:

Addressed. Clarified to mean mechanical equipment associated with the aquatic facility.

- *Comment:*
5.6.3.1.3 – Strike “done for maintenance, repair, or display”

Changes made to Code/Annex:

Agreed. Changes made as suggested.

- *Comment:*
5.6.3.2.3 – As written would exclude the ability to upgrade or improve. Suggest...“similar or improved type”

Changes made to Code/Annex:

Disagree. Same type means replacing GFCI w another GFCI outlet. Not concerned about whether it is a better quality or not.

- *Comment:*
5.6.3.3.3 – Define Temporary.

Changes made to Code/Annex:

Addressed. This section has been removed from the MAHC as all requirements are the same for permanent and temporary facilities.

- *Comment:*
5.6.3.4.4 – Define qualified person

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Changes made to Code/Annex:
Addressed. Defined in glossary

- *Comment:*
5.6.3.4.6 – Close the entire facility? Close the attractions? Overly broad.

Changes made to Code/Annex:
Agreed. “Facility” has been changed to “venue”

- *Comment:*
5.6.10.1.2 – This would eliminate any swim up type bar. Overly restricted delete.

Changes made to Code/Annex:
Commenter was referring to MAHC Section 5.6.9.1.2. Swim-up bars are not prohibited in the MAHC, but the committee does prohibit eating and drinking inside the aquatic venue, “outside designated areas” (added). Supporting rationale added to the Annex.

- *Comment:*
5.6.10.1 – Suggest an entry to have a fixed fulcrum for recreational use.

Changes made to Code/Annex:
Not addressed. This comment not applicable to MAHC Operation and Maintenance. Diving comments fall under the MAHC Facility Design and Construction code provisions.

- *Comment:*
5.6.10.5.2 – Add documentation requirement

Changes made to Code/Annex:
MAHC TC does not feel this is a necessary item to document; however, facilities may choose to document this if they please.

- *Comment:*
5.4.2.2.4 – How does this account for items that do not have Operations manuals, in-house made equipment and/or older equipment with no manual available?

Changes made to Code/Annex:
Addressed. Code section added to provide for this issue.

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- *Comment:*
5.6.10.3.5 – Define “removable”. Most starting blocks are capable of being removed but are not removed each time programming changes.

Changes made to Code/Annex:

Code changed to read, “Starting blocks designed to be removable shall be removed at all times when use is prohibited.”

- *Comment:*
6.4.1.3.7 – Really?

Changes made to Code/Annex:

Please refer to Fecal, Vomit, and Blood Guidelines outlined in the MAHC.

5. John Puetz, Lonza Microbial Control (Alpharetta, GA)

- *Comment:*
As written there is no guidance on frequency of documentation or what “access” means. The paragraph as written makes little sense and is not enforceable. -- The operator shall assess and document glare conditions throughout operating hours during the day and season.

Changes made to Code/Annex:

Addressed. Added language to specify seeing main drain or bottom of the pool; and removed requirement to document glare. In Annex, suggested that operators may adjust guard chair position.

- *Comment:*
5.6.1.2.2 -- *As written the instruction is completely subjective and impossible to enforce.* -- Windows and lighting equipment shall be adjusted to mitigate glare and excessive reflection on the POOL surface.

Changes made to Code/Annex:

Addressed. Added language to specify seeing main drain or bottom of the pool; and removed requirement to document glare. In Annex, suggested that operators may adjust guard chair position.

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- *Comment:*

5.6.1.2.1 – General section does not specify how to assess, how to document, for what purpose, etc. -- The operator shall assess and document glare conditions throughout operating hours during the day and season.

Changes made to Code/Annex:

Addressed. Added language to specify seeing main drain or bottom of the pool; and removed requirement to document glare. In Annex, suggested that operators may adjust guard chair position.

- *Comment:*

5.6.1.2.1 -- As written there is no guidance on frequency of documentation or what “access” means. The paragraph as written makes little sense and is not enforceable. -- The operator shall assess and document glare conditions throughout operating hours during the day and season.

Changes made to Code/Annex:

Addressed. Added language to specify seeing main drain or bottom of the pool; and removed requirement to document glare. In Annex, suggested that operators may adjust guard chair position.

- *Comment:*

5.6.1.2.2 -- As written the instruction is completely subjective and impossible to enforce. -- Windows and lighting equipment shall be adjusted to mitigate glare and excessive reflection on the POOL surface.

Changes made to Code/Annex:

Addressed. Added language to specify seeing main drain or bottom of the pool; and removed requirement to document glare. In Annex, suggested that operators may adjust guard chair position.

- *Comment:*

5.6.1.2.1 – How do you “assess glare”? Suggest that the LG/Bather supervision staffing criteria is used here. Glare in this case would be eliminated due to staffing criteria to allow LG full vision of zone of protection.

Changes made to Code/Annex:

Addressed. Added language to specify seeing main drain or bottom of the pool; and removed requirement to document glare. In Annex, suggested that operators may adjust guard chair position.

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- *Comment:*
5.6.1.2.2 – What is excessive? Need to be objective not subjective here.

Changes made to Code/Annex:

Addressed. Added language to specify seeing main drain or bottom of the pool; and removed requirement to document glare. In Annex, suggested that operators may adjust guard chair position.

Comment:

ANNEX 5.4.1.1.4 – If the MAHC is going to be concerned about mosquitoes, then a gravity drain system will likely be required for most outdoor pools because a sump pump will certainly risk failing during the winter and rain water and snow melt will not be able to be kept out of the pool and from creating ponding. Also, many new facilities have detention ponds that would be just as likely, if not more so, to harbor disease carrying mosquitoes. -- It is important for the operator to be aware that when closed for even short periods of time, the venue distribution system, including drinking fountains and other potable water sources, may become stagnated. It is important to adequately ensure that all features should be adequately flushed and disinfected prior to reopening. Standing water, including closed swimming pools, can be a source of mosquitoes. Although mosquitoes can carry many diseases such as dengue fever, malaria, and encephalitis, one of the most common diseases today is the West Nile encephalitis. Additionally, closed pools can be a safety concern, especially for small children. When the pool is not drained or covered tightly to prevent entry, children may knowingly or accidentally enter the pool and drown. Because of the slime that often builds on the wall of these abandoned pools, it may be impossible for those that enter the pool to climb out. While fence barriers or safety covers can create a “safe condition” for the pool, these methods will not prevent the potential mosquito problems mentioned above.

Changes made to Code/Annex:

The MAHC thinks there is enough information to get operators thinking about the issue of what is happening to water quality during closures when stagnant water is likely to occur. No new wording added at this time.

- *Comment:*
5.12.6.1 – Is it the intent of this section to ban wading pools from having a common filtration system with an adjacent vessel? I would be opposed to this intention.

Changes made to Code/Annex:

This code provision applies only to wastewater and has been moved elsewhere in the MAHC. It does not apply to co-filtration, which is covered in the MAHC Recirculation and Filtration code provisions.

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