

**Public Comments and Responses for
Hygiene Facilities Module Code and Annex
after First 60-day Review Period**

Informational Copy: NOT Open for Public Comment

1. Scot Hunsaker, Councilman-Hunsaker (St. Louis, Missouri)

• *Comment:*

4.10.2.1 and 4.10.2.2 -- *The section reference appears incorrect. There does not appear to be any support data (science-driven or otherwise) for the spacing of the toilet facilities. Most medium to large-sized municipal aquatic facilities would require multiple bathhouses which will likely come at an additional construction cost in the six figures. Also, the draft code does not stipulate whether the 200 or 300 ft separations are “as the crow flies” or along a deck path. 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. I understand the reason behind toilet facilities in close proximity to the pools; however, I’m concerned about potentially over-reaching when there is no supporting data.* -- Except as required in 4.10.2.2, a drinking fountain, toilet, hand washing sink, and DIAPER-CHANGING STATIONS shall be located no greater than 300 feet (91m) walking distance from the nearest entry/exit of the most distant AQUATIC VENUE to the entry/exit of the HYGIENE FACILITY. An AQUATIC VENUE intended designed primarily for DIAPER-AGED CHILDREN (children less than 5 years of age) shall have a drinking fountain, toilet, hand washing, and DIAPER-CHANGING STATIONS located no greater than 200 feet (61m) walking distance and in clear view from the nearest entry/exit of the AQUATIC VENUE.

Changes to Module/Annex:

The code language includes walking distance and is common language in OR, NY and WI. The shorter distance for pools used by diaper aged children is required because children can not hold their bowels as long and may need to be carried.

• *Comment:*

ANNEX 4.10.4.2 -- *From my experience, it’s not a lack of showers that is the issue. It’s enforcing bathers to use the showers. It seems focusing on using the showers should be the primary focus before more unused fixtures are required to be added.* -- The purpose of the showers described in this section is to remove dead skin and perianal fecal material before BATHERS enter the pool. This is best done through nude showering using warm water and soap. The purpose of the showers described in MAHC 4.10.4.2 is to remove inorganic material such as sand or dirt. This can be done in open showers with ambient temperature water. For that reason, RINSE SHOWERS should not figure into this requirement.

Changes to Module/Annex:

The purpose of CLEANSING and RINSE SHOWERS was clarified in the Annex. To increase flexibility for aquatic facilities, rinse and cleansing showers were also separated in the code with an allowance for larger facilities to be flexible in the amount of CLEANSING SHOWERS provided (i.e., make more of them rinse showers). The committee deemed it impossible at this time to enforce use of showers; however, current language focuses on location and availability of the showers to promote use.

2. Stephen Springs, Brinkley Sargent Architects (Dallas, Texas)

- *Comment:*

Definition “Bather Load” -- Define bather load, and reference to Section where it is tabulated. This is critically important and should also be put forward for public comment.

Changes to Module/Annex:

Agreed. BATHER LOAD and OCCUPANT LOAD have been defined.

- *Comment:*

4.10.1.3.1 -- Suggest a reference here to location in MAHC for calculating bather load.

Changes to Module/Annex:

Agreed. The BATHER LOAD calculation is referenced from the ventilation section and the calculation is now explained in this section of Hygiene.

- *Comment:*

4.10.3.3.1 -- *Use common industry language* -- “Floor drain opening covers shall be heel-proof.” -- **Reference:** Better serves the intent.

Changes to Module/Annex:

Heel proof is ambiguous. No change.

- *Comment:*

4.10.3.3.2 -- *Code – Accessibility* -- Add, “Slopes shall not exceed ¼” vertical in 12” horizontal in any direction.” -- **Reference:** Federal ADAAG guideline

Changes to Module/Annex:

Included ADAAG reference in code language.

- *Comment:*
4.10.4.2.1 -- *Professional experience* -- Except for existing health codes (which presumably the MAHC is intended to replace), many local codes do not require showers or specific shower counts. I recommend that MAHC provide a required shower count methodology based on bather load and type of use. I agree with Annex note. In our practice, we encourage owners to provide additional showers at competitive venues due to the sudden loads of people in locker rooms.

- *Changes to Module/Annex:*
Agreed. RINSE and CLEANSING SHOWER counts have been added based on BATHER LOAD.

- *Comment:*
4.10.4.2.3 -- What does “adjacent to” mean? Within a certain distance of what?

Changes to Module/Annex:

Next to or adjoining. We want to give designers some discretion and not be too prescriptive. The intent is not to walk around touching things and contaminate other areas. No Change

- *Comment:*
4.10.4.3.1 -- *Code – Plumbing* -- Potential conflict with 4.10.1.3.1. In our experience, plumbing codes tend to require too many fixtures because they are based on egress occupancy rather than bather load. We have successfully designed fixture counts around bather loads many times. Recommend MAHC provide fixture count tabulation criteria based on bather load. – **Reference:** IBC Chapter 29

Changes to Module/Annex:

Agreed, added both fixture counts. Shower counts are based on BATHER LOAD while the rest of the HYGIENE FIXTURES are based on OCCUPANT LOAD.

- *Comment:*
4.10.4.4.6 -- *Professional experience* -- Be aware that this requirement will greatly reduce design flexibility in laying out bathhouse plans. Existing facilities should be grandfathered, as retrofitting plumbing is often not feasible, or at the very least, unreasonably expensive. Recommend that providing sanitizer (already required by 4.10.4.4.1&8) at changing stations be treated as equal to providing an immediately adjacent sink. Also suggest changing “adjacent” to “near”.

Changes to Module/Annex:

The MAHC determined the hand sink should be adjacent to the diaper-changing unit to facilitate use and prevent contamination of other items before cleaning hands. Sanitizer is for surface treatment. Using hand sanitizer in lieu of hand-washing is not as effective

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in inactivating all fecal pathogens. Hand sanitizers are intended for use with hands that do not have a high organic load and are not effective against common diarrheal pathogens such as norovirus and *Cryptosporidium*. Using EPA surface products for hands is not appropriate. No change.

- *Comment:*

4.10.4.5.1 -- *Professional experience* -- Floor-mounted toilets are often much more constructible than wall-mounted. Also, many of our clients (jurisdictions) require floor-mounted toilets to combat vandalism. Same goes for toilet partitions. Ceiling-hung partitions do not perform well in these environments and become maintenance headaches. Recommend deletion of this requirement.

Changes to Module/Annex:

Agreed. Changed as suggested.

- *Comment:*

4.10.4.5.3.2 -- Is it the intent of this section to ban attractive mirrors? Not all Owners want their facilities to look like a prison restroom.

Changes to Module/Annex:

The intent was to prevent cuts from glass dispensers. Language was changed to “shatter resistant” and mirrors were specifically exempted.

- *Comment:*

4.10.4.5.4 -- Suggest changing “adjacent” to “near”.

Changes to Module/Annex:

We want to give designers some discretion and not be too prescriptive. The intent is not to walk around and touching things and contaminate other areas. No Change.

- *Comment:*

4.10.4.5.5.2 -- Suggest changing “adjacent” to “near”.

Changes to Module/Annex:

We want to give designers some discretion and not be too prescriptive. The intent is not to walk around and touching things and contaminate other areas. No Change.

- *Comment:*

4.10.7.1 -- Approved by whom?

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Changes to Module/Annex:

Added “ approved by local, state or federal regulations.”

- *Comment:*
4.10.7.2 -- “LAW” is capitalized, but not defined.

Changes to Module/Annex:

LAW was removed and the language was changed to “as in accordance with local, state or federal regulation”

- *Comment:*
5.10.2 -- Nothing to review

Changes to Module/Annex:

5.10.2 is designated for Hygiene Facilities Location. Section 5.0 relates to Facility Maintenance and Operation. Location relates more to Section 4.0: Facility Design and Construction.

- *Comment:*
5.10.3 -- *Many states require architect to design buildings involving public accommodation.* -- Suggest requiring a licensed architect to design the bathhouse.

Changes to Module/Annex:

This section is addressed in the Regulatory section 4.1.1.3 which states: “All plans shall be prepared by a licensed person and within their scope of practice as defined by the state or local laws governing professional practice within the jurisdiction.”

- *Comment:*
5.10.4.5.4 -- The way this is worded, all mats could be interpreted as prohibited. Is the intent to only prohibit wooden mats? (I think so) The latter is reasonable. The former is not.

Changes to Module/Annex:

Clarified as suggested. Wood has been included as being prohibited.

- *Comment:*
5.10.5.2.1 -- “Shared equipment shall be maintained in good repair or replaced.”

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Changes to Module/Annex:

FDA Food Code uses “shall be maintained in good repair”, and does not include replaced, as it is not necessary, but rather implied. No change.

- *Comment:*

ANNEX 4.10.3.1 -- There is no industry standard for testing slip resistance in the field on wet surfaces. – **Reference:** Based on my extensive research in helping to author Decks section of MAHC FD&C Module

Changes to Module/Annex:

Agreed there is no industry standard for field testing, however, products purchased have a stated coefficient of friction on wet and dry surfaces. See Design and Construction for specific standards. No change.

3. Judy Vallandingham, WVDHHR/Bureau for Public Health – Office of Environmental Health Services—Public Health Sanitation (Charleston, West Virginia)

- *Comment:*

4.10.3.4 -- *Requiring this to be a hard surface would be impractical in some situations.*
 -- Partitions and enclosures adjacent to HYGIENE FACILITIES shall have a smooth, ~~hard~~, easy-to-clean, impervious surface.

Changes to Module/Annex:

Agreed. Changed as suggested.

- *Comment:*

4.10.3.5 -- *Requiring a hose bibb in each hygiene facility may be impractical if these aquatic venues are used seasonally or are exposed to extreme cold temperatures.* -- At least one hose bibb ~~shall~~ should be located in each HYGIENE FACILITY.

Changes to Module/Annex:

Outdoor facilities that are not used during the off season have the water turned off and drained so that there is no freeze damage to all the fixtures and piping (otherwise the buildings require heating like other buildings that are used year-round in parks). So, hose bibs are required but winterized during the off season. Outdoor hose bibs connected to a heated building should be the frost proof type that can operate all winter. A hose bib facilitates cleaning, so if a hose bib was not required, how would these areas be adequately cleaned? No change.

- *Comment:*
4.10.4.1.1 -- PLUMBING FIXTURES shall be installed and operated in a manner to adequately protect the potable water supply from back siphonage or BACKFLOW as required by LAW. – **Reference:** FDA Food Code

Changes to Module/Annex:

Included “ be installed and operated in a manner to” in 4.10.4.1.1. LAW is currently not defined so included,” in accordance with local, state, or federal regulation.”

- *Comment:*
4.10.4.4.3 -- *Limiting in scope* -- DIAPER-CHANGING UNITS shall conform to ASTM standard F2285-04 “Consumer Performance Standards for Commercial Diaper-Changing Stations” or the standards for diapering-changing surfaces in the most current version of *Caring for Our Children: National Health and Safety Performance Standards: Guidelines for Out-of-Home Child Care Programs* or equivalent.

Changes to Module/Annex:

To the best of our knowledge, these are the only two sets of standards for this equipment and we don’t expect there to be an equivalent. No Change

- *Comment:*
4.10.4.4.4 -- *This is not consistent with current guidelines* -- 2) Dump contents from reusable diapers into toilets and bag diapers to take home. -- **No rinsing or dumping of the contents of the diaper shall be performed at the child care facility.** *Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs Third Edition - Chapter 3 (3.2.1.1) and If reusable cloth diapers are used, put the soiled cloth diaper and its contents (without emptying or rinsing) in a plastic bag or into a plastic-lined, hands-free covered can to give to parents/guardians or laundry service. Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Educational Programs Third Edition Chapter 3 (3.2.1.4 Step 4-b)*

Changes to Module/Annex:

AQUATIC VENUES are not child care facilities. The protocol for handling reusable diapers for child care facilities was made in order to minimize caregiver exposure to feces and carrying soiled diapers from a changing location to a toilet. At aquatic facilities, this is a different situation as there is a parent with their child (exposure to fewer children) in a setting where the changing table should be closer to a toilet. We feel that setting a scenario where parents may bring bagged feces into the pool area rather than flushing down the toilet poses an additional risk. No Change.

- *Comment:*
5.10.1.1 -- Same exact statement

Changes to Module/Annex:

Agreed, same statement as 5.10.4.1.1. Only need once. Deleted as suggested.

- *Comment:*
5.10.5.1.1 -- Used Soiled suits and towels shall be kept separate from clean suits and towels and kept in good repair.

Changes to Module/Annex:

Changed language to: "all suits and towels furnished or rented shall be washed with detergent and warm water, rinsed, and thoroughly dried after each use." We felt the term "used" is more appropriate.

- *Comment:*
5.10.5.1.2 -- *Nothing specified about what type of receptacle.* -- Receptacles shall be provided for collection of ~~used~~soiled suits and towels. Receptacles shall be non-absorbent, easily cleanable, covered containers or covered laundry bags intended for laundry storage. -- **Reference:** West Virginia General Sanitation Rule 64 CSR 18 11.2. Soiled laundry shall be stored in non-absorbent, easily cleanable, covered containers or covered laundry bags intended for laundry storage.

Changes to Module/Annex:

Added "non absorbent, easily cleanable". Omitted covered as it seems excessive.

- *Comment:*
5.10.5.2.3 -- *Nothing specified about what type of receptacle.* -- Receptacles shall be provided for collection of used shared equipment. Receptacles shall be non-absorbent, and easily cleanable. -- Reference: West Virginia General Sanitation Rule 64 CSR 18

Changes to Module/Annex:

Agreed. Changed as suggested.

4. Ron Sutula, Schlitterbahn Waterparks (Galveston, Texas)

- *Comment:*
4.10.2.1 -- *What qualifies it to be 300? For a multiple venue facility , patrons are very*

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active and mobile and do not stay in one location -- Change 300 feet to 450 or 500 feet
 -- **Reference:** What is the basis of the submitted language??

Changes to Module/Annex:

The code language includes walking distance(300 feet is the size of a football field) and is common language in OR, NY and WI. The shorter distance for pools used by diaper aged children is required because children can not hold their bowels as long and may need to be carried.

- *Comment:*

4.10.3.5 -- *Allowing generic water sources* -- At least one hose bib or other water source to connect a hose shall be located in each hygiene facility.

Changes to Module/Annex:

Agreed. Changed section to read, "At least one hose bib or other potable water source capable of connecting a hose to shall be located in each hygiene facility to facilitate cleaning.

- *Comment:*

4.10.4.2.1 -- *What data supports this requirement?* -- Total male and female shower count shall be in accordance with applicable state and local CODES or as modified herein. The total count will at a minimum, **be equal to half of the total toilet count**

Changes to Module/Annex:

The section on showers has been changed. The original language has been removed and replaced by separating RINSE and CLEANSING SHOWERS and requiring the minimum counts based on BATHER LOAD. New language was taken from current state requirements which are discussed in the annex.

- *Comment:*

4.10.4.2.2 -- *Does that include group showers?* -- CLEANSING SHOWER compartment entryways shall be enclosed by a door or curtain.

Changes to Module/Annex:

Group showers are allowed and the language was changed to make this more clear. We encourage privacy since we think it will promote shower use.

- *Comment:*

(No Section Provided) -- *Requiring adjacent to all venues is presumptuous. We are a smaller waterpark and this would require at least 25 rinse shower locations* -- RINSE

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SHOWERS shall be located in the Aquatic Facility to allow all BATHERS to rinse off prior to entering the AQUATIC VENUES.

Changes to Module/Annex:

The TC believes this comment is referring to Section 4.10.4.2.3. One RINSE SHOWER is required per venue. However, this requirement affects only new construction or substantial renovation on existing facilities.

5. Steven Chevalier, Tri-County Health Department (Commerce City, Colorado)

• *Comment:*

4.10.1.3 -- *Existing state or local codes – Section 3.21* -- The minimum number of PLUMBING FIXTURES, showers, toilets, and urinals, and other HYGIENE FIXTURES shall be based on maximum BATHER load of each AQUATIC VENUE. **Is there a proposed ratio for this?** -- **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 to Module/Annex:

This section has been updated and provides specific shower counts based on BATHER LOAD. CLEANSING SHOWERS counts are based on the ratio of 1:40 found in many existing state codes.

• *Comment:*

4.10.3.3.2 -- Floors shall be sloped to drain water or other liquids. **Is there a specific slope suggested?**

Changes to Module/Annex:

AGAAG slope requirements have been included in the code. Design Section 4.8.1.3.1 has more detail on specific slopes.

• *Comment:*

4.10.4.2.1 -- Total male and female shower count shall be in accordance with applicable state and local CODES or as modified herein. The total count will at a minimum, be equal to half of the total toilet count **This conflicts with 4.10.1.3.1**

Changes to Module/Annex:

Agreed. This section has been changed.

- *Comment:*
4.10.4.2.3 -- *Existing state or local codes – Section 3.22* -- RINSE SHOWERS shall be located adjacent to the AQUATIC VENUES to allow all BATHERS to rinse off prior to entering the AQUATIC VENUES. **Will there be a specification as to the location of cleansing showers?** -- **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 to Module/Annex:

Yes, 4.10.4.2.5 states “CLEANSING SHOWERS shall be located in a HYGIENE FACILITY near the entrance and within clear view of the AQUATIC VENUE.”

- *Comment:*
4.10.4.2.3.1 -- Floors of RINSE SHOWERS shall be sloped to drain wastewater away from the AQUATIC VENUE **towards floor drains or landscaping**

Changes to Module/Annex:

Removed term landscaping and referenced local codes. Landscaping was added to annex language for more explanation.

6. Alan Piccard, University of Alaska Anchorage (Anchorage, Alaska)

- *Comment:*
4.10.4.2.2 -- Our facility has cleansing showers adjacent to the aquatic venue as well as hygiene facilities per the requirements that you are looking to require. With very little work we can bring our program into compliance with in regards to Diaper Changing stations as well. I very much see the purpose of this and since we are in compliance already it is easy. My question and comment has to do with the requirement of what appears to be individual shower stalls with curtains in the locker room. I believe this to be unnecessary to the requirement of a cleansing shower if an open area already exists and potentially a great burden to facilities required to retrofit locker rooms to comply.

Changes to Module/Annex:

Changed language to clearly explain group showers are ok, the entrance way to the showers need a door or curtain for privacy. Individual shower stalls are not required.

7. Susan Metko, Fond du Lac Family YMCA – Aquatic Department (Fond duLac, Wisconsin)

- *Comment:*
5.10.5.2 -- *Aquatic centers that facilitate ongoing swim lesson, fitness classes and*

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swim teams cannot stock enough equipment nor have enough room to sterilize and dry each piece of equipment prior to the next class. This would take several hours to dry a noodle or kickboard. -- Include nightly cleaning and sterilization of items such as kickboards, noodles, and fins. Scratch cleaned, sanitized and thoroughly dried after each use from the above items. -- **Reference:** Shared equipment, including but not limited to snorkels, nose clips and goggles, fins, kick boards, and noodles, provided by the facility shall be cleaned, sanitized, and thoroughly dried after each usage.

Changes to Module/Annex:

This section has been updated to separate items that need sanitizing and those items that need to be clean and potentially scrubbed to remove biofilms that are not removed by pool water immersion alone.

8. Pamela Scully, Connecticut Department of Public Health (Hartford, Connecticut)

- *Comment:*
4.10.4.2.1.1 -- *CT DPH requires all showers to be counted for compliance to be Cleansing Showers* -- Rinse Showers adjacent to Aquatic Venues may NOT be included in the count of available showers. – **Reference:** Design Guide Section 21 and CT Public Health Code Section 19-13-B33b(b)(8).

Changes to Module/Annex:

This section was changed to address the differences between rinse and cleansing showers.

- *Comment:*
4.10.4.2.1.2 -- *No requirement for Rinsing Showers in CT* -- (Eliminate this section).

Changes to Module/Annex:

The MAHC is model guidance and we recognize that some states may not be at that level. No Change.

- *Comment:*
4.10.4.4 -- (Question – would this be for only new facilities? Financial hardship to retrofit existing facilities).

Changes to Module/Annex:

Changed code language to differentiate between what sections are required to be retrofitted. The SC understands financial hardship so anything substantial (for example, installation of a plumbed hand wash sink) has been given a recommended timeframe

for compliance. State and local jurisdictions can ultimately decide an acceptable timeline for compliance of these sections once they adopt the MAHC.

9. Richard Carroll, Ellis & Associates (Ocoee, FL)

- *Comment:*

4.10.2.1 – Cost analysis is needed here. Not to mention that facilities may not even be able to obtain additional facilities for waste based upon local health codes. I would like to know what is the relevant issues that would require such?

Changes to Module/Annex:

The intent is to increase use of toilet, hand-washing, and drinking water facilities, and to reduce pool-side diapering in an effort to reduce the spread of illness and promote good hygiene. Cost analysis data are not available. While it may not always be possible to obtain approval for additional waste disposal in existing facilities this standard applies to new construction and not existing. The Cleveland Family Studies and Seattle Virus Watch studies both demonstrated that diaper-age children are the leading introducers of infectious diseases into their families.

- *Comment:*

4.10.2.2 – Same as above

Changes to Module/Annex:

Same as above

- *Comment:*

4.10.4.5.2 – Entry indicates Lockers are required? Clarification...IF lockers are available...

Changes to Module/Annex:

Agreed. Changed as suggested.

10. Amanda Oberacker, Truckee Donner Recreation and Park District (Truckee, CA)

- *Comment:*

4.10.4.4.6 – *Too specific* -- Sink located in the same room as changing table

Changes to Module/Annex:

This applies to new construction. "In same room" is much too vague. The intent is to

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wash hands at the station not wander somewhere else in the room and likely lead to more contamination. No Change.

- *Comment:*
4.10.4.4.7 – *Too specific* -- Garbage can-not covered-located in same room as changing table

Changes to Module/Annex:

The intent is to have a dedicated garbage disposal receptacle for waste associated with diaper changing. Hand-free covers are required to keep down pests, odors, and contamination of the lid. No Change.

- *Comment:*
5.10.5.2 – *Chlorine sanitizes them!* -- Shared equipment, such as kickboards and pull buoys do not need to be sanitized.

Changes to Module/Annex:

Data published and referenced in Annex (Davis et al. 2009) suggests the items even in chlorinated water were found to harbor bacteria. Likely in biofilms or scum layers. Biofilms on these items also make cleaning more difficult. Changed language to require sanitization of shared equipment that comes in contact with bathers eyes, ears, nose and mouth. Other equipment such as noodles and kickboards do not need to be sanitized but do need to be cleaned, scrubbed and stored in a manner to prevent biological growth.