AHC Meeting # 13
IgCC Code changes at 2014 Public Comment Hearings

The following is a list of code changes to be considered at the upcoming 2014 Public Comment Hearings on the IgCC. This list was compiled based on the AHC positions taken at the April/2014 AHC meeting. Of the 22 code changes for which the AHC has taken a position, 5 of the code changes have received a public comment and will be on the agenda for the upcoming hearing.

GG150-14
407.3.2

Proponent: John Williams, CBO, Chair, representing ICC Adhoc Health Care Committee (AHC@iccsafe.org); Brenda Thompson, Clark County Development Services, Las Vegas, NV, Chair, ICC Sustainability, Energy and High Performance Code Action Committee (SEHPCAC)

Revise as follows:

407.3.2 Long-term bicycle parking. Long-term bicycle parking shall comply with all of the following:

1. It shall be located on the same *building site* ~~and~~ or within the building ~~or within 300 feet (91 440 mm) of the main entrances;~~
2. It shall be provided with illumination of not less than 1 footcandle (11 lux) at the parking surface;
3. It shall have an area of not less than 18 inches (457 mm) by 60 inches (1524 mm) for each bicycle; and
4. It shall be provided with a rack or other facility for locking or securing each bicycle.

Not less than 50 percent of long-term bicycle parking shall be within a building or provided with a permanent cover including, but not limited to, roof overhangs, awnings, or bicycle storage lockers, or within covered parking structures.

Vehicle parking spaces, other than those required by Section 407.4, local zoning requirements and accessible parking required by the *International Building Code*, shall be permitted to be used for the installation of long term bicycle parking spaces.

Reason: Hospitals often have multiple building sites. This proposal makes two changes.

Change to Item 1 – The 300 foot travel distance does not work on multi-building site. Putting it close is already covered by the definition of 'building site', so the travel distance limitation is not needed.

Change to Item 4 - Using a parking garage to provides covered spaces for bikes should be allowed as an option.

This proposal is cosponsored by the ICC Ad Hoc Committee for Healthcare (AHC) and the ICC Sustainability Energy and High Performance Code Action Committee (SEHPCAC).

The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that

the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 11 open meetings and over 162 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx.

The SEHPCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance International Codes with regard to sustainability, energy and high performance as it relates to the built environment included, but not limited to, how these criteria relate to the International Green Construction Code (lgCC) and the International Energy Conservation Code (IECC). This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. In 2012 and 2013, the SEHPCAC has held six two-day open meetings and 50 workgroup calls, which included members of the SEHPCAC as well as any interested parties, to discuss and debate proposed changes and public comments. Related documentation and reports are posted on the SEHPCAC website at: http: ffwww.iccsafe.orgfcsfSEHPCACfPagesfdefault.aspx.

Cost Impact: Will not increase the cost of construction.

GG150-14: 407.3.2-PAARLBERG425

Public Hearing Results

Committee Action: **Approve as Submitted**

Committee Reason: Restrictions on travel distance for bicycle parking is unnecessary. It doesn't make any difference whether you ride a bicycle to the site or you drive a car to the site. You park the bicycle or the car in the same location and have to walk 500 feet to the building. This arrangement seems to work well without any problems at many locations in many jurisdictions.

Assembly Action: **None**

Individual Consideration Agenda

Public Comment:

Susan Gitlin, representing US Environmental Protection Agency (gitlin.susan@epa.gov) requests Approve as Modified by this Public Comment.

Modify the proposal as follows:

407.3.2 Long-term bicycle parking. Long-term bicycle parking shall comply with all of the following:

1. It shall be located on the same ~~building~~ *site* ~~or~~ and within the building or within 300 feet (91 440 mm) of the main entrances;
2. It shall be provided with illumination of not less than 1 footcandle (11 lux) at the parking surface;
3. It shall have an area of not less than 18 inches (457 mm) by 60 inches (1524 mm) for each bicycle; and
4. It shall be provided with a rack or other facility for locking or securing each bicycle.

Not less than 50 percent of long-term bicycle parking shall be within a building or provided with a permanent cover including, but not limited to, roof overhangs, awnings, or bicycle storage lockers, or within covered parking structures.

Vehicle parking spaces, other than those required by Section 407.4, local zoning requirements and accessible parking required by the International Building Code, shall be permitted to be used for the installation of long term bicycle parking spaces.

Commenter's Reason: The original proposal (GG-150) results in a sentence that 1) adds no value to the code and 2) eliminates the preferred parking status that the code intends to provide bicyclists. This modification addresses those problems by reinstating the original language for that part of the proposal.

It is important that the original language in 407.3.2(1) be reinstated for the following reasons:

a) The statement that long-term parking "shall be located on the same building site or within the building" is an obvious statement and therefore need not be included in the code.
b) The original language provides flexibility to the builder by providing an option to either place the long-term bicycle parking within the building or within 300 feet of the main entrances. The proposed language would only require that the long-term bicycle parking be somewhere on the site. For large facilities and multiple-building projects, this could mean that it is acceptable to locate long-term bicycle parking acres away from the entrance. This is at odds with the goals of this section and the code.

c) The commenter argued that 407.3.2(1) does not fit the needs of multiple-building sites. This is not true. The item was written with such sites in mind, which is why it specifies "main entrances" (plural), rather than a singular entrance.

GG150-14

GG249-14

807.3.2

Proposed Change as Submitted

Proponent: John Williams, CBO, Chair, representing ICC Adhoc Health Care Committee (AHC@iccsafe.org)

Revise as follows:

TABLE 807.3.2
MAXIMUM PERMISSIBLE INDOOR BACKGROUND SOUND IN ROOMS

OCCUPANCY TYPE	ROOM	NOISE CRITERIA (NC) LIMITS
Assembly A-1	Symphony, concert, recital halls Motion picture theaters	30 40
Assembly A-3	Places of religious worship, lecture halls not part of educational facilities Art gallery, exhibit hall, funeral parlor, libraries, and museums Courtroom Educational occupancies above 12th grade	35 40 35 (See Educational)
Assembly A-4	Gymnasiums, natatoriums and arenas with seating areas	45
Business B	Office—enclosed greater than 300 square feet Office—enclosed less than or equal 300 square feet	35 40
	Office—open plan Corridors and lobbies Conference rooms Educational occupancies above 12th grade	45 45 35 (See Educational)
Educational E	Core learning lecture and classrooms that are less than or equal to 20,000 cubic feet in volume Core learning lecture and classrooms that are greater than 20,000 cubic feet in volume Open plan classrooms Administrative offices and rooms Music teaching studios Music practice rooms	ANSI/ASA S12.60-2010/Part 1 or ANSI/ASA S12.60-2009/Part 2
Institutional I-2	<u>All areas</u> ~~Wards Private and semi-private patient rooms Operating rooms Corridors and public areas~~	2010 FGI-ASHE Guidelines for Design and Construction of Healthcare Facilities
	~~Rooms or suites Bathroom, kitchen, utility room~~	~~25 to 35 40~~
Residential R-1 and R-2	Meeting rooms Corridors and lobbies Service areas	35 45 45

For SI: 1 square foot = 0.093 m2, 1 cubic foot = 28.31 L.

Reason: Group I-2, Condition 2 (hospitals) is heavily regulated by the FGI Guidelines for Design and Construction of Healthcare Facilities that include stringent acoustical requirements. Adding additional layers of Codes to hospitals

creates unnecessary potential for confusion between designers and Building Officials and expensive conflict resolution where Codes disagree. The FGI Guidelines are specifically created to meet the unique needs of hospitals and are the best source for healthcare acoustical minimum standards.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 11 open meetings and over 162 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

Cost Impact: Will not increase the cost of construction

GG249-14 : TABLE807.3.2-PAARLBERG661

Public Hearing Results

The following is errata that was posted to the ICC website:

TABLE 807.3.2
MAXIMUM PERMISSIBLE INDOOR BACKGROUND SOUND IN ROOMS

OCCUPANCY TYPE	ROOM	NOISE CRITERIA (NC) LIMITS
Institutional I-2	All areas ~~Wards Private and semi-private patient rooms~~ ~~Operating rooms Corridors and public areas~~	2010 FGI-ASHE Guidelines for Design and Construction of Healthcare Facilities
	~~Rooms or suites~~	~~25 to 35~~
	~~Bathroom, kitchen, utility room~~	~~40~~

(Portions of table and proposal not shown do not have errata.)

(Errata already incorporated in cdpACCESS.)

Committee Action: **Approved as Modified**

Modify the proposal as follows:

TABLE 807.3.2
MAXIMUM PERMISSIBLE INDOOR BACKGROUND SOUND IN ROOMS

OCCUPANCY TYPE	ROOM	NOISE CRITERIA (NC) LIMITS
~~Institutional I-2~~	~~All areas~~	~~2010 FGI-ASHE Guidelines for Design and Construction of Healthcare Facilities~~

(Portions of table not shown are not modified.)

Committee Reason: The Committee modified the proposal because the modification coordinates with the Committee's action on GG245-14. The Committee approved the proposal as modified to coordinate with the Committee's action on GG245-14.

Assembly Action: **None**

Individual Consideration Agenda

Public Comment:

Noral Stewart, Stewart Acoustical Consultants, representing Acoustical Society of America, Institute of Noise Control Engineering, ASTM International Committee E33 task group on building codes, Facilities Guideline Institute Acoustics Working Group, The American Society of Heating, Refrigeration, and Air Condition (noral@sacnc.com) requests Approve as Submitted.

Commenter's Reason: The committee in modifying the original proposal to delete reference to sound level requirements for I-2 facilities failed to recognize that not all I-2 facilities are required to meet the FGI-ASHE requirements. Not all jurisdictions enforce that document. Thus, either the language in the current code or that proposed in the proposal would be required to have any requirements for sound levels in facilities not covered by the FGI-ASHE requirements. It is understood that the reference to the year 2010 will be removed editorially.

This comment submitted on behalf of the Acoustical Society of America (ASA), the Institute of Noise Control Engineering of the USA (INCE), ASTM International Committee E33 task group on building codes, TC 2.6 of the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), the Facilities Guideline Institute (FGI) Working Group on Acoustics, and the National Council of Acoustical Consultants (NCAC).

GG249-14

GEW94-14

606.8

Proposed Change as Submitted

Proponent: John Williams, CBO, Chair, representing ICC Adhoc Health Care Committee (AHC@iccsafe.org); Brenda Thompson, Chair, representing Sustainability, Energy, High Performance Code Action Committee (SEHPCAC@iccsafe.org)

Delete without substitution:

~~**606.8 Laboratory exhaust systems.** Laboratory exhaust systems shall comply with the provisions of the *International Energy Conservation Code* except as specified in Section 606.8.1.~~

Reason: The International Energy Code does not include laboratory exhaust system requirements. So Section 606.8 is not needed. Section 606.8.1 can stand on it's own.

This proposal is cosponsored by the ICC Ad Hoc Committee for Healthcare (AHC) and the ICC Sustainability Energy and High Performance Code Action Committee (SEHPCAC).

The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 11 open meetings and over 162 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx.

The SEHPCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance International Codes with regard to sustainability, energy and high performance as it relates to the built environment included, but not limited to, how these criteria relate to the International Green Construction Code (IgCC) and the International Energy Conservation Code (IECC). This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. In 2012 and 2013, the SEHPCAC has held six two-day open meetings and 50 workgroup calls, which included members of the SEHPCAC as well as any interested parties, to discuss and debate proposed changes and public comments. Related documentation and reports are posted on the SEHPCAC website at: http://www.iccsafe.org/cs/SEHPCAC/Pages/default.aspx.

Cost Impact: Will not increase the cost of construction.

GEW94-14: 606.8-PAARLBERG645

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: The committee was unsure of what final approved language contained in the IECC 2015 will be, therefore they felt this deletion to be premature.

Assembly Action: **None**

Individual Consideration Agenda

Public Comment:

John Williams, representing Adhoc Health Care Committee (AHC@iccsafe.org) requests Approve as Modified by this public comment.

606.8 Laboratory exhaust systems. Laboratory exhaust systems shall comply with the provisions of Section C403.2.7 of the *International Energy Conservation Code* except as specified in Section 606.8.1.

Commenter's Reason: During the testimony it was stated that laboratory exhaust systems will be addressed in the 2015 IECC. While there isn't a specific section regarding laboratory exhaust systems in the IECC, there provisions which address laboratory fume hoods. Section C403.2.7 requires energy recovery ventilation systems. The section provisions an exception for laboratory fume hood systems meeting certain criteria. These criteria need to be considered in conjunction with the provisions of 606.8 and 606.8.1 when the IgCC is adopted. Rather than our original proposal of striking very generic reference to the IECC, we think it is important to have a specific reference since the requirement is 'hidden' in an exception.

GEW94-14

GEW98-14
607.5, A106.3.2

Proposed Change as Submitted

Proponent: John Williams, CBO, Chair, representing ICC Adhoc Health Care Committee (AHC@iccsafe.org)

Revise as follows:

607.5 Waste water heat recovery system. The following building types shall be provided with a waste water heat recovery system that will preheat the incoming water used for hot water functions by not less than 10°F (5.6°C):

1. Group A-2, restaurants and banquet halls;
2. Group F, laundries;
3. Group R-1, boarding houses (transient), hotels (transient), motels (transient);
4. Group R-2 buildings;
5. Group A-3, health clubs and spas; and
6. Group I-2 facilities~~, hospitals, psychiatric hospitals and nursing homes~~.

Exception: Waste water heat recovery systems are not required for single-story slab-on-grade and single-story on crawl-space buildings.

A106.3.2 Occupancy. The building shall be designed to serve one of the following occupancies:

1. Group A-2, restaurants and banquet halls;
2. Group F, laundries;

3. Group R-1, boarding houses (transient), hotels (transient), motels (transient);
4. Group R-2 buildings;
5. Group A-3, health clubs and spas; and
6. Group I-2 facilities~~, hospitals, mental hospitals and nursing homes~~.

Reason: These changes are editorial. The list is not needed as it includes all Group I-2 facilities. Similar proposals are provided for Section 604.3, 606.5.1 and 607.5.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 11 open meetings and over 162 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

Cost Impact: Will not increase the cost of construction

GEW98-14: 607.5 #1-PAARLBERG668

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: Based on the Committee's approved as modified action on GEW101-14, the Committee determined that approval of this proposal was unnecessary.

Assembly Action: **None**

Individual Consideration Agenda

Public Comment:

John Williams, representing Adhoc Health Care Committee (AHC@iccsafe.org) requests Approve as Submitted.

Commenter's Reason: The development committee disapproved this change believing it was resolved by the action on GEW101-14. However, only half of this change was resolved.

Section 607.5 has been entirely replaced by GEW101-14. The modification deleted the Group I-2 list from that proposal. Therefore the issue with Section 607.5 is resolved if GEW101-14 remains approved as submitted.

The change to A106.3.2 is editorial. Group I-2 includes all these types of facilities. Putting in the list here implies that there are some Group I-2 types of facilities that would not be covered.

GEW98-14

GEW162-14

702.18, 702.18.1

Proposed Change as Submitted

Proponent: John Williams, CBO, Chair, representing ICC Adhoc Health Care Committee (AHC@iccsafe.org)

Delete without substitution:

~~**702.18 Autoclaves and sterilizers.** Autoclaves and sterilizers requiring condensate tempering systems shall be of the type that does not require potable water to be blended with the discharge water to reduce the temperature of discharge.~~

~~**702.18.1 Vacuum autoclaves and sterilizers.** Vacuum sterilizers shall be prohibited from utilizing venturi-type vacuum mechanisms using water.~~

Reason: There are problems with the code text requirements and the types of sterilizers currently on the market. In Section 702.18.1, there is only one manufacturer that provides this type of device.
For Section 702.18

Options with Pros and Cons

Chilled Water Recirculation Loop for Medium & Large Size Sterilizers – Reduces total water consumption per sterilization cycle to 1-1.5 gallons.

Pros:

- Sterilizers are tied into the facility's chilled water recirculation loop when systems have excess capacity to supply and cool steam sterilizer units. This recirculation loop prevents the majority of the water used in the steam sterilizers to be flushed down the facility drain
- Only 1-1.5 gallons of water are consumed per cycle

Cons

- Added product acquisition costs ($ 5,000 to $ 10,000) per sterilizer + any associated installation costs to connect to the facility chilled water system
- Added cost for hospital to install Chilled Water Loop piping infrastructure to the SPD department. Might require larger chiller system to feed multiple steam sterilizers in SPD. (additional cost)
- Some competitors require additional sq/ft to install chilled water recirculation system (lost space to the facility)
- This option may not be viable to facilities that are replacing old sterilizers with new ones. (infrastructure, footprint, cost, etc.)
- Currently not available on small sterilizers (3-5 year development project). Vendor cost would increase
- Many hospitals do not have excess chilled water capacity for the SPD
- Chilled water supply all year round, for all seasons in the northern US might not be feasible.
- Some facilities don't rely on a central steam boiler system for the steam sterilizers. These Customers use electric steam generators to supply their steam sterilizers. Stand alone or integral steam generators must have potable water for steam generation, discharge of sterilizer, and discharge of generator. There is no manufacturing chilled water solution for stand alone or integral steam generators. No current solution

Non Potable Water Options (Grey Water or Rain Water)

Pros

- Utilize untreated water and save potable water consumption

Cons

- Today, manufactures have designed steam sterilizers to accept only one feed water source, potable water. To change this design to accept grey water & potable water for the steam sterilizer, there would be an increase the total acquisition cost of the sterilizer unit.
- Steam sterilizers have specific water quality requirements to ensure proper performance. There are no current water quality standards established for the use of grey water in steam sterilizer systems. Facilities will still need to meet manufacturing water quality requirements even with grey water. Obviously there is more variability and unknown elements in grey water that exponentially increase water quality variability. New project development required (3-5 years) by manufacturers. Added cost of equipment ($ 1,000 - $ 2,000) per unit depending sterilizer model.
- Grey Water must be collected and treated by hospital. Cost to the facility to implement Non-Potable Water could be significant. (reclamation, collection, treatment, filtration, and delivery to the SPD)
- Hospital infection control concerns with Non-Potable Water in clean (sterile processing) environments, creation of aerosols, potential bacteria introduced from these systems, cross contamination, backflow issues, etc. are all concerns.

Alternate Non-Potable Water Reclamation/Recirculation Systems

Pros

- Utilize water loops for discharge to recirculate and only add fresh water when needed. System could be consolidated for several units (mini water treatment system in each facility) or stand alone for each sterilizer.

Cons

- Effectively requires a mini water treatment unit inside each facility. Additional cost and maintenance would be the responsibility of the facility. (water must be decontaminated & treated)
- Nothing commercially available at this time from any of the major sterilization equipment manufacturer.
- Multiple systems would be required for multiple sized units or entire departments, adds significant cost and requires additional space for processing water recirculation by hospital.
- Hospital infection control concerns with Non-Potable Water in clean (sterile processing) environments, creation of aerosols, potential bacteria introduced from these systems, cross contamination, backflow issues, etc. are all concerns.

Steam Condensate Return Lines

Pros

- Steam condensate is returned to the boiler, which is the largest reason for water consumption in a sterilizer cycle. Water consumption significantly reduced.
- Know technology, but not available for steam sterilizers

Cons

- Additional cost for return piping infrastructure by hospital
- Hospital infection control concerns to return steam that was used for sterilization purposes into the main hospital steam boiler system
- Potable water still needed for 50% of the units sold with a built in steam generator
- No current commercialized solution available on the market for steam sterilizers

SUMMARY

All of these options will require additional equipment, cost, square footage, and infrastructure changes by the facility. Many of these options may not be available in facilities such as small hospitals, surgery centers, or converted/renovated hospital space. Additional product development, FDA Submission, or additional equipment from manufacturers could take 3-5 years to comply with these codes.

For Section 702.18.1:

Select small & medium sized steam sterilizers currently use Venturi-type vacuum mechanisms. Venturi systems do have a positive role for certain applications. Small steam sterilizers are infrequently used near the OR. These small sterilizers have low usage and lower water consumption vs. larger units. Venturi systems cost much less than vacuum pump systems. If vacuum pumps are the only solution, small steam sterilizer costs will increase. The footprint of the sterilizer might also increase, making it difficult to replace older units that were smaller in design.

We agree that medium to large steam sterilizers should only use vacuum pump systems due to their larger water volume demand per cycle.

Pros

- Vacuum Pump Systems (vs. Venturi systems) could reduce water consumption by 40-50%

Cons

- Vacuum systems are not available currently for the small sterilizers from largest market share manufacturer in US at this time. To our knowledge, only one manufacturer uses vacuum pumps in small sterilizers which would create a monopoly with new code language
- Hospitals would be required to run additional electric (208 or 480 service) to ALL locations requiring small sterilizers. Currently only 50% of the small sterilizers sold require the installation of the high voltage, 3 phases lines. Additional costs would be incurred to provide electrical lines or force hospital to purchase larger sterilizers with built in vacuum pump.
- Vacuum pumps use additional electric consumption as a trade off for the water saving.
- Vacuum pumps still require water for the seal. Facilities would still have to incur the costs of providing water lines to the units.

Pump noise levels may not be acceptable in clinical spaces adjacent to operating rooms

Small sterilizers with electric steam generators, water recirculation, and vacuum pumps may expand the footprint of the sterilizers beyond what is acceptable in small areas provided in the OR space, requiring additional sq/ft costs by the facility

Not commercially available (3-5 year development process)

Added cost could be 10-15% above current costs (Average unit costs $35-45k for surgery applications today)

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held 11 open meetings and over 162workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: http://www.iccsafe.org/cs/AHC/Pages/default.aspx

Chilled Water Recirculation Loop for Medium & Large Size Sterilizers – Reduces total water consumption per sterilization cycle to 1-1.5 gallons.

Cost Impact: Will not increase the cost of construction.

GEW162-14: 702.18-PAARLBERG656

Public Hearing Results

Committee Action: **Disapproved**

Committee Reason: There is too much water wasted by autoclaves and sterilizers to justify completely removing the current code requirements. Perhaps an exception for health care facilities could be brought forth in a public comment.

Assembly Action: **None**

Individual Consideration Agenda

Public Comment 1:

John Williams, representing Adhoc Health Care Committee (AHC@iccsafe.org) requests Approve as Modified by this Public Comment.

Replace proposal as follows:

702.18 Autoclaves and sterilizers. Autoclaves and sterilizers requiring condensate tempering systems shall be of the type that does not require potable water to be blended with the discharge water to reduce the temperature of discharge.

Exception: Autoclaves and sterilizers in Group I-2, Condition 2 facilities and ambulatory care facilities are not required to comply with this section.

Commenter's Reason: This proposal responds to the committee reason. The committee felt that autoclaves and sterilizers should not be removed totally from the requirements, but that an exception specific to health care facilities to address the health concerns brought up by the Adhoc Health Care committee. These concerns are:

Availability of medical grade sterilizers that are designed for use with non-potable water.

Sterilizers are regulated by FDA and the FDA has not approved any medical grade sterilizer that is designed to use non-potable water. The development/clearance process for a medical grade sterilizer to use non-potable water will take a minimum of 3-5 years if the FDA is willing to approve such a design. This approval may not be obtainable due to the fact that non-potable water could be an infection risk when aerosols are creating during discharge process. Since there is not an available solution on the market to currently meet this code of no-potable water use this exception is necessary.

Sterilizers are used in two primary locations:

DEDICATED STERILE PROCESSING DEPARTMENT (SPD) - large volume batch processing of ALL instrumentation in for surgical use. These sterilizer units use vacuum pumps and not venturi systems.

OPERATING ROOM - Secondary location is within the OR Suite, a sensitive clinical environment where sterilizer cycles are used for emergency situations only (rarely used/low volume). Sterilizers are in rooms connected/immediately adjacent to surgeons operating on patients, where mechanical noise of pumps, compressors, or other intermittent loud sounds should be avoided. Healthcare governing agencies such as AAMI and AORN recommend the elimination of sterilizer cycle use in the OR where possible.

ISSUES WITH CURRENT CODE REQUIREMENTS:

Surgical Disruption - Surgical sterilizers continue to use venturi systems to prevent pump cycling noise immediately adjacent to an Operating Room, where procedures such as Neuro Surgery, Opthamology and other sensitive procedures are done. Clinicians do not want the noise to distract surgery.

Limited Options for Customers - Only one manufacturer currently offers a non-venturi system for the OR, which would limit options for hospitals.

Public Comment 2:

John Williams, representing Adhoc Health Care Committee (AHC@iccsafe.org) requests Approve as Modified by this Public Comment.

Replace proposal as follows:

~~**702.18.1 Vacuum autoclaves and sterilizers.** Vacuum sterilizers shall be prohibited from utilizing venturi-type vacuum mechanisms using water.~~

Commenter's Reason: There are problems with the code text requirements and the types of sterilizers currently on the market. In Section 702.18.1, there is only one manufacturer that provides this type of device. Proprietary requirements are a violation of CP28 Section 3.6.

Additionally, sterilizers are used in two primary locations:

DEDICATED STERILE PROCESSING DEPARTMENT (SPD) - large volume batch processing of ALL instrumentation in for surgical use. These sterilizer units use vacuum pumps and not venturi systems

OPERATING ROOM - Secondary location is within the OR Suite, a sensitive clinical environment where sterilizer cycles are used for emergency situations only (rarely used/low volume). Sterilizers are in rooms connected/immediately adjacent to surgeons operating on patients, where mechanical noise of pumps, compressors, or other intermittent loud sounds should be avoided. Healthcare governing agencies such as AAMI and AORN recommend the elimination of sterilizer cycle use in the OR where possible.

ISSUES WITH CURRENT CODE REQUIREMENT:

Surgical Disruption - Surgical sterilizers continue to use venturi systems to prevent pump cycling noise immediately adjacent to an Operating Room, where procedures such as Neuro Surgery, Opthamology and other sensitive procedures are done. Clinicians do not want the noise to distract surgery.

Limited Options for Customers - Only one manufacturer currently offers a non-venturi system for the OR, which would limit options for hospitals.

GEW162-14