

**AD HOC HEALTHCARE COMMITTEE
GENERAL WORK GROUP
CODE CHANGE DRAFTS
11/7/2012**

This report includes 6 code change proposals from the Adhoc Health Care, General Work Group developed for Group B changes. This includes a larger change adding a new Section 1105 which is actually jointly drafted with the MOE WG and can be found in their report.

New Code Changes not previously reviewed by the AHC

| Code | Section | K-Tags Number | Comments |
|-------------|---|---|---|
| IFC | 5306.4 | K78 | Makes clear that existing systems do not need to retroactively comply with NFPA 99 only the maintenance provisions. |
| IFC | 5306 and new Section in 1105 to retroactively require medical gas rooms | K143 | Correlates with the medical gas transfilling requirements when it occurs within a building. |
| IFC | 5003.9.11(New) | K134 | Adds a trigger for Eyewash stations in the IFC for corrosive materials only. |
| IFC | See proposal from MOE for new Section 1105 | K12, K23, K24, K25, K26, K27, K28, K104 | Retroactive requirements (includes MOE issues as well) |

Code changes previously reviewed by the AHC with revisions since the initial AHC review

| Existing Group B Proposals | | | |
|-----------------------------------|------------------|--------------------|-------------------------|
| Code | Section | KTAG Number | Comments |
| IFC | 604.1.1 (IBC[F]) | | Referencing ASCE 24 for |

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|--|----------------------------|-------------------------|--|
| | 2702.1.1) | | generators. |
| IFC | 611 (new) (g | K142 | Hyperbaric facilities. G78-12 was AS for new installations. |
| Issues already addressed in IFC (no code changes needed) | Various maintenance issues | K67, K68, K69, K70, K27 | <ul style="list-style-type: none"> • Gas fireplaces • Smoke barrier maintenance • Fire wall, fire barrier maintenance |

New Group B Proposals

F#-13

5306.4

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

Revise as follows:

5306.4 Medical gas systems. Medical gas systems including, but not limited to, distribution piping, supply manifolds, connections, pressure regulators and relief devices and valves, shall be installed in accordance with NFPA 99 and the general provisions of this chapter. Existing medical gas systems shall be maintained in accordance with the maintenance provisions of NFPA 99 for medical gas systems.

Reason: This is to emphasize that once installed in accordance with NFPA 99 it is not required that the new requirements of NFPA 99 be retroactively enforced. Instead the intention is that the systems be maintained in accordance with the maintenance provisions of NFPA 99. This addresses CMS KTag K78.

F#-13

5306, 1105.XX(New)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

Revise as follows:

SECTION 5306

MEDICAL GASES SYSTEMS

5306.1 General. *Compressed gases at healthcare related hospitals and similar facilities intended for inhalation or sedation including, but not limited to, analgesia systems for dentistry, podiatry, veterinary and similar uses shall comply with Sections 5306.2 through 5306.4 in addition to other requirements of this chapter.*

5306.2 Interior supply location. Medical gases shall be stored ~~and transfilled~~ in areas dedicated to the storage of such gases without other storage or uses. Where containers of medical gases in quantities greater than the permit amount are located inside buildings, they shall be in a 1-hour exterior room, a 1-hour interior room or a gas cabinet in accordance with Section 5306.2.1, 5306.2.2 or 5306.2.3, respectively. ~~Flooring in 1-hour exterior room or 1-hour interior rooms shall be ceramic or concrete.~~ Rooms or areas where medical gases are stored or used in quantities exceeding the *maximum allowable quantity per control area* as set forth in Section 5003.1 shall be in accordance with the *International Building Code* for high-hazard Group H occupancies.

5306.2.1 One-hour exterior rooms. A 1-hour exterior room shall be a room or enclosure separated from the accordance with Section 707 of the *International Building Code* or *horizontal assemblies* constructed in accordance with Section 711 of the *International Building Code*, or both, with a *fire-resistance rating* of not less than 1 hour.

Openings between the room or enclosure and interior spaces shall be self-closing smoke- and draft-control assemblies having a *fire protection rating* of not less than 1 hour. Rooms shall have at least one exterior wall that is provided with at least two vents. Each vent shall not be less than 36 square inches (0.023 m²) in area. One vent shall be within 6 inches (152 mm) of the floor and one shall be within 6 inches (152 mm) of the ceiling. Rooms shall be provided with at least one automatic sprinkler to provide container cooling in case of fire.

5306.2.2 One-hour interior room. When an exterior wall cannot be provided for the room, automatic sprinklers shall be installed within the room. The room shall be exhausted through a duct to the exterior. Supply and exhaust ducts shall be enclosed in a 1-hour-rated shaft enclosure from the room to the exterior. *Approved* mechanical ventilation shall comply with the *International Mechanical Code* and be provided at a minimum rate of 1 cubic foot per minute per square foot [0.00508 m³/(s □ m²)] of the area of the room.

5306.2.3 Gas cabinets. Gas cabinets shall be constructed in accordance with Section 5003.8.6 and the following:

1. The average velocity of ventilation at the face of access ports or windows shall not be less than 200

feet per minute (1.02 m/s) with a minimum of 150 feet per minute (0.76 m/s) at any point of the access port or window.

2. They shall be connected to an exhaust system.
3. They shall be internally sprinklered.

5306.3 Exterior supply locations. Oxidizer medical gas systems located on the exterior of a building with quantities greater than the permit amount shall be located in accordance with Section 6534.2.1.

5306.4 Transfilling. Transfilling of liquid or gaseous oxygen within a building shall be located in a space in accordance with Section 5306.2. Flooring in rooms or spaces where transfilling occurs shall be ceramic or concrete.

5306.4 5306.5 Medical gas systems. Medical gas systems including, but not limited to, distribution piping, supply manifolds, connections, pressure regulators and relief devices and valves, shall comply with NFPA 99 and the general provisions of this chapter.

Transfilling. The process of transferring a medical gas in gaseous or liquid state from one container or cylinder to another container or cylinder.

[Excerpt from NFPA 99] - Need to check CGA requirements for definition as well.

11XX.X Compressed Medical gases. Medical gases stored and transferred in healthcare related facilities shall be in accordance with Chapter 53.

REASON: This proposal addresses CMS KTag 143. This KTag is concerned with the transferring or what is often termed transfilling of oxygen in a gaseous or liquid form within hospitals and other medical facilities. The current provisions in the IFC are actually fairly consistent with NFPA 99 and the requirements of the KTags in this respect. The only major differences found were that the IFC requirements do not specifically address transfilling which has been defined in this proposal and the type of floor surface allowed. Transfilling is the transfer of oxygen to smaller portable containers from larger storage containers. This can occur in liquid or gaseous state. Currently the provisions only relate to storage. This has been revised by the proposal. Additionally as noted the type of flooring needed to be addressed. The specific revision relates to the CMS guidelines which call for ceramic or concrete flooring. The issue relates to prohibiting surfaces that contain oil such as asphalt. Other terms were considered such as impervious but that does not meet the non combustibile intent of the flooring.

There are a couple other issues addressed by this proposal which are as follows:

Title 5306. This was changed to delete the term “systems” since transfilling and storage of oxygen is not necessarily part of a system. This will be a more general title which is more applicable to all of Section 5306.

Section 5306.1. The terms hospitals and similar facilities were deleted in favor of a more all encompassing set of terms “Healthcare related facilities.” The current language seems to give priority to hospitals and can be somewhat unclear that it would apply to ambulatory care facilities and nursing homes.

Retroactive requirement. The other revision was the addition of a retroactive requirement in Chapter 11 which basically sends you to Chapter 53 in general for compressed gases. A general reference was made since it would not simply be compliance with Section 5306 that is necessary. The medical gas requirements are only one aspect of the regulation of compressed gases.

F#-13

5003.9.11(New)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

Revise as follows:

5003.9 General safety precautions.

General precautions for the safe storage, handling or care of hazardous materials shall be in accordance with Sections 5003.9.1 through ~~5003.9.10~~ 5003.9.11.

5003.9.11 Emergency showers and eyewash stations. Where the eyes or body of any person are at risk for exposure to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use. The emergency showers and eyewash stations shall be installed in accordance with the International Plumbing Code.

Reason: This proposal addresses KTag K134. The IPC already provides the installation requirements but the requirements are not called up in the IFC. This proposal uses verbiage from OSHA with some minor tweaks to remove permissive language. The focus is only on corrosive materials which are defined in the IFC.

Source of verbiage (no copyright issues):

OSHA

1910.151(c)

Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

For Reference

International Plumbing Code 2012

SECTION 411 EMERGENCY SHOWERS AND EYEWASH STATIONS

411.1 Approval.

Emergency showers and eyewash stations shall conform to ISEA Z358.1.

411.2 Waste connection.

Waste connections shall not be required for emergency showers and eyewash stations.

Existing Group B Proposals

Fxx-12/13

604.1.1 ([F]2702.1.1)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

(IBC) Revise as follows:

604.1.1([F]2702.1.1) Stationary generators. Stationary emergency and standby power generators required by this code shall be *listed* in accordance with UL 2200 and shall be installed in accordance with ASCE 24.

Add to Chapter 80:

ASCE 24 - Flood Resistant Design and Construction

Reason: 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](http://www.iccsafe.org/cs/AHC/Pages/default.aspx), 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 5 open meetings and over 80 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>.

There is no way to get to the requirements or limitations regarding generator placement for healthcare facilities that are in the standard if the code text for the specific code section does not take you there.

The Adhoc committee on healthcare identified this coordination oversight as it has been identified in healthcare facilities and that generators are being installed in areas subject to flooding, and although they were designed to meet the structural loads for the flooding, they would operationally fail.

There is no cost impact for these requirements because the compliance with ASCE 24 is required for these facilities; specific reference to ASCE for coordination of requirements applicable to healthcare facilities that require emergency or standby power systems per federal, state and licensing agency requirements and references.

It is an installation construction requirement that is not specifically addressed in the code; emergency and standby power by generators is necessary for life safety and preservation for healthcare and for other occupancies and uses as specified in 2702.

ASCE 24 is currently referenced in the IBC

MAINTENANCE ITEMS

Fxx-12/13

611 (New)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

Add Section 611 to the IFC as follows:

SECTION 611 – HYPERBARIC FACILITIES

(K 142) 611.1 General. Hyperbaric facilities shall be maintained in a safe condition at all times in accordance with Section 14.3 of NFPA 99.

611.2 Records. Records shall be maintained of all testing and repair conducting on the hyperbaric chamber and associated devices and equipment. Records shall be available to the fire code official.

REASON: 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](http://www.iccsafe.org/cs/AHC/Pages/default.aspx), 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 5 open meetings and over 80 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>
Currently there is no specific requirement for maintaining hyperbaric chambers in the IFC. Adding this section into Chapter 6 will require that all hyperbaric chambers are maintained to the same NFPA standard they were required to meet when they were installed.

PROVISIONS ALREADY COVERED IN I-CODES

(K 67; K68) 603.5.2 Heating appliance installation and maintenance. Heating appliances shall be installed and maintained in accordance with the manufacturer's instructions, the International Building Code, the International Mechanical Code, the International Fuel Gas Code and NFPA 70.

(K 27; K 104) 703.1.2 Smoke barriers and smoke partitions. Required smoke barriers and smoke partitions shall be maintained to prevent the passage of smoke. All openings protected with approved smoke barrier doors or smoke dampers shall be maintained in accordance with NFPA 105.

(K 27) 703.1.3 Fire walls, fire barriers and fire partitions. Required fire walls, fire barriers and fire partitions shall be maintained to prevent the passage of fire. All openings protected with approved doors or fire dampers shall be maintained in accordance with NFPA 80.