



# **2022 GROUP B PROPOSED CHANGES TO THE I-CODES ROCHESTER COMMITTEE ACTION HEARINGS**

March 27 - April 6, 2022

Rochester Riverside Convention Center, Rochester, NY

2021-2022 Code Development Cycle, Group B (2022) Proposed Changes to the 2021 *International Codes*

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## **ISPSC Code Change Proposals**

The following code change proposals are labeled as Swimming Pool and Spa code change proposals because they are proposals for changes to sections in chapters of the International Swimming Pool and Spa Code that are designated as the responsibility of the ISPSC Development Committee (see page xii of the Introductory pages of this monograph). However the changes included in this Group B code development cycle are to sections of the code that have been prefaced with a [S], meaning that they are the responsibility of a different IBC Code Development Committee—IBC-Structural Committee [S].

The committee assigned for each code change proposal is indicated in a banner statement near the beginning of the proposal.

# SP1-22

ISPSC: [BS] 304.3

**Proponents:** Gregory Wilson, representing FEMA (gregory.wilson2@fema.dhs.gov); Rebecca Quinn, RCQuinn Consulting, Inc., representing Federal Emergency Management Agency (rcquinn@earthlink.net)

**THIS PROPOSAL WILL BE HEARD BY THE IBC-STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.**

## 2021 International Swimming Pool and Spa Code

Revise as follows:

**[BS] 304.3 Pools and spas in coastal high-hazard areas and Coastal A Zones.** Pools and spas installed in coastal high-hazard areas and Coastal A Zones shall be designed and constructed in accordance with ASCE 24.

**Reason Statement:** This proposal achieves consistency with the IRC and the IBC referenced standard ASCE 24, Flood Resistant Design and Construction. Since the 2015 editions, the IRC and IBC (by reference to ASCE 24) apply most of the coastal high hazard area (V Zone) requirements to buildings and structures in the Coastal A Zone, where delineated. ASCE 24-14 separates pool requirements for (1) Pools in flood hazard areas other than coastal high hazard areas and Coastal A Zones and (2) Pools in Coastal High Hazard Areas, Coastal A Zones, and Other High Risk Flood Hazard Areas.

The inland boundary of the coastal high hazard area (Zone V) is drawn by FEMA where breaking wave heights are expected to drop below 3.0 ft during base flood conditions. FEMA's many post-disaster investigations after severe coastal storms have long recommended application of coastal high hazard area (Zone V) requirements to areas inland of the Zone V/Zone A boundary – in the area subject to waves between 1.5 ft and 3 ft – the area referred to as "Coastal A Zone". Since fiscal year 2009, all coastal flood studies by FEMA include analyses of moderate wave action and FIRMs will show the Limit of Moderate Wave Action (LiMWA).

The total land area of the Coastal A Zone is small. FEMA has estimated that less than 3 percent of all mapped flood hazard areas are Zone V and the LiMWA generally is determined to be a relatively short distance inland from the Zone V boundary.

ASCE 24-14 requirements for pools in coastal high-hazard areas and Coastal A Zones comply with the free-of-obstruction requirements of the NFIP and the I-Codes and also address stability of pools as separate structures. At present, a pool not meeting these requirements could become an obstruction to an adjacent structure.

**Cost Impact:** The code change proposal will increase the cost of construction

ASCE 24 already requires pools in Coastal A Zones to be designed the same as pools in coastal high hazard areas (Zone V). Increased construction costs occur only for some pools located in Coastal A Zones, a relatively small area delineated immediately inland of many Zone V areas. ASCE 24 offers three options for pools in these areas. There is no cost increase when pools are in-ground (considered the most common configuration). There is a cost increase for the option to elevate the lowest horizontal structural member of a pool to at least the base flood elevation (in Coastal A Zones the depth of water above the ground ranges from approximately 5 feet to 3 feet). The third option also increases costs, and that is for pools to be designed to breakaway under flood conditions (the least commonly used configuration). A number of variables determine the increase in costs, including soil types and depth of flooding. The benefits of in-ground and elevated pools are avoidance of deflecting waves that damage structures and the pools are not damaged by flooding up to the design flood.

SP1-22

# SP2-22

ISPSC: [BS] 304.4

**Proponents:** Gregory Wilson, representing FEMA (gregory.wilson2@fema.dhs.gov); Rebecca Quinn, representing Federal Emergency Management Agency (rcquinn@earthlink.net)

**THIS PROPOSAL WILL BE HEARD BY THE IBC-STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.**

## 2021 International Swimming Pool and Spa Code

Revise as follows:

**[BS] 304.4 Protection of equipment.** Equipment shall be elevated to or above the design flood elevation ~~or be anchored to prevent flotation and protected to prevent water from entering or accumulating within the components during conditions of flooding.~~

**Exception:** Equipment for pools, spas and water features shall be permitted below the required elevation provided the equipment is elevated to the highest extent practical, is anchored to prevent flotation and resist flood forces, and is protected to prevent water from entering or accumulating within the components during conditions of flooding.

**Reason Statement:** This proposal moves the requirement “or be anchored to prevent flotation and protected to prevent water from entering or accumulating within the components during conditions of flooding.” to an exception and adds a requirement to elevate equipment to the highest extent practical, even if it is below the required elevation.

The exception also makes explicit that pool equipment below the required elevation must resist flood forces. The IRC and the IBC (via the standard ASCE 24, Flood Resistant Design and Construction) already require mechanical, plumbing, and electrical systems to resist hydrostatic and hydrodynamic loads and stresses. Proposals that achieve the same result were approved by the Florida Building Commission for the 2021 Florida Building Code, with concurrence by FEMA.

**Cost Impact:** The code change proposal will not increase or decrease the cost of construction

The additional cost of “elevating to the highest extent practical” is minimal, given the savings from not having damaged equipment in the event of frequent flooding that is shallower than the design flood elevation (or base flood elevation).

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SP2-22

