

COMMUNITY AFFAIRS

DIVISION OF CODES AND STANDARDS

Uniform Construction Code

Adopted Subcodes

Adopted Amendments: N.J.A.C. 5:23-3.14, 3.16, 3.17, 3.18, 3.20, 3.21, and 3.22

Adopted Repeals: N.J.A.C. 5:23-7.1 through 7.14 and 7.20

Proposed: January 5, 2015, at 47 N.J.R. 9(a).

Adopted: July 27, 2015, by Charles A. Richman, Acting Commissioner,

Department of Community Affairs.

Filed: July 27, 2015, as R.2015 d.139, **with non-substantial changes** not requiring additional public notice and comment (see N.J.A.C. 1:30-6.3).

Authority: N.J.S.A. 52:27D-124.

Effective Date: September 21, 2015.

Expiration Date: March 25, 2022.

Summary of Public Comments and Agency Responses:

Comments were received from:

Kenneth Rogers, CFM, Construction Official, Bedminster Township; John Drucker, CET, Assistant Construction Official, Fire Protection Subcode Official, Borough of Red Bank; Richard A. Soltis, Jr., President, Central Jersey Code Officials Association; Nicholas J. Kikis, Vice President, Legislative and Regulatory Affairs, New Jersey Apartment Association; Carol Ann Short, Esq., Chief Executive Officer, New Jersey Builders Association; Kelly A. Giblin, PE, Chief Engineer, Design and Environmental Services, NJ Transit Corp.; Anthony Gryscavage, PE, Director, Portable Fire Extinguishers, Tyco Fire Protection Products; Albert Fecci, President, Brett Straten, Legal and Legislative Committee Chair, New Jersey Association of Fire Equipment Distributors; Katherine Depablos, Vice President of Operations, Safety Supplies Unlimited; Marc Indri, Vice President, American Fire & Safety Equipment Co., Inc.; Norbert Makowka, Vice President, National Association of Fire Equipment Distributors; Howard Schwartz, President, Aish Fire Protection Co.; Crista LeGrand, Executive Director, Fire Suppression Systems Association; Craig Voelkert, Chairman, Government Relations Committee, Fire Equipment Manufacturers' Association; Albert D. Fecci, President, Jersey Coast Fire Equipment; Joseph T. Krug, Owner, East Coast Fire Systems, LLC; Brett Straten, President, Associated Fire Protection; Joseph Duffy, President, Campbell Fire Protection; Timothy Krulan, President, New Jersey Fire Equipment, LLC; James Newell, President, Allied Fire & Safety Equipment Co., Inc.; Kevin Ravaioli, Partner, In Control, LLC; George Yiannou, General Manager, Firematic & Safety Equipment Co., Inc.; Diane M. Pein, Chief Operating Officer, Approved Fire Protection; Dr. Joseph F. Racite, Racite Fire Extinguishers & Equipment; Gary Campbell, Vice President, Metro Fire & Safety Equipment Co., Inc.; Joseph J. Ferrara, Vice President and General Counsel, Ferrara West LLC; Rita Seraderian, Executive Director, PCI Northeast; Patrick W. Reardon, Jr., Executive Director, PCA Northeast Region; Perry W.

Snyder, Vice President, Sales, Buzzi Unicem USA; Greg Winkler, Executive Director, Mid-Atlantic Precast Association; Mike Mota, PhD, PE, Vice President of Engineering, Concrete Reinforcing Steel Institute; Lionel Lemay, Senior Vice President, Sustainable Development, National Ready Mixed Concrete Association; Brendan J. Mangan, General Sales Manager, Lehigh Cement Company; Stephen S. Szoke, PE, Senior Director Codes and Standards, Portland Cement Association; John Burdi, Territory Sales Manager, Lafarge North America; Logan Myers, Board President, Pennsylvania Concrete Masonry Association; William F. Layton, New Jersey Concrete & Aggregate Association; Richard A. Miller, York Building Products; David Lucisano, President, Lucisano Bros. Inc.; John M. Fizzano, Vice President, Fizzano Brothers Concrete Products; Laurence J. Silvi, II, Owner/CEO, The Silvi Group Companies, Inc.; Jesus Martinez, Vice President of Business Development, Joel Tanis & Sons, Inc.; John Cross, PE, Vice President, American Institute of Steel Construction, LLC; Stanley J. Sickels, Fire Marshal/Construction Official, Borough of Red Bank; Robert J. Davidson, Fire & Life Safety Consultant, Davidson Code Concepts; David Kurasz, Executive Director, New Jersey Fire Sprinkler Advisory Board; Alexi Assmus, PhD, Mary Clurman, Rob Dodge, PhD, Paul Driscoll, Anita Garoniak, Marco Gottardis, PhD, Susan Jefferies, Jean Meyer, Grace Sinden, Princeton residents; Frederic Barall, Senior Vice President of Industrial Relations and General Counsel, National Fire Sprinkler Association; Chief John F. Lightbody (retired), Chairman, New Jersey Fire Sprinkler Coalition; Joe Janiga, FSFPE, President, New Jersey Chapter of the Society of Fire Protection Engineers; Kent Mezaros, CEO, Quick Response Fire Protection; Nicole Urizzo, Executive Director, New Jersey Plumbing, Heating and Cooling Contractors Association; Sister Miriam MacGillis, OP, Director/Founder, Genesis Farm; Martin Hammer, Architect; Greg Chontow; Adam Corbin, Corbin Electrical Services, Inc.; Scott Sidlow, Building

Science Advisor, Masco Home Services/Environments for Living; Kevin Rose, Building Energy Senior Technical Associate, Northeast Energy Efficiency Partnerships; Eric Lacey, Chairman, Responsible Energy Codes Alliance; Hal Bozarth, Executive Director, Chemistry Council of New Jersey; Steve Rosario, Senior Director, Northeast Region, American Chemistry Council; Bill Cattell, Fire Protection Subcode Official, Borough of National Park; James J. Barlow, PE, North East Consulting & Construction Management, Inc.; David T. Phelan; Brian Black, Code & Standards Analyst, National Elevator Industry, Inc.; Amy Blankenbiller, Government Affairs Director, National Elevator Industry, Inc.; Vickie J. Lovell, Executive Director, Fire Safe North America.

General

1. COMMENT: The commenter thanked the Department for proposing these amendments and noted that the proposed amendments would keep New Jersey up to date with code changes made by the International Code Council (ICC.) Adopting Chapter 11 of the International Building Code (IBC) for accessibility requirements will simplify plan reviews.

RESPONSE: The Department thanks the commenter for this expression of support.

2. COMMENT: The New Jersey Builders Association (NJBA) applauds the Department of Community Affairs (DCA) for the diligent, thorough, and responsible review of the model codes in an effort to provide that all buildings and dwelling units constructed in New Jersey are safe, efficient, and affordable. This is often a difficult challenge as the model codes are developed nationally, but adopted and utilized by states with such vast differences in topography, climate, geology, and socio-economic diversity. While recognizing the achievements of DCA, the NJBA

remains concerned that many involved in the national code adoption process have lost sight of the main objective of a building code – to provide the *minimum* standards necessary to adequately protect the health, safety, and welfare of occupants, while concurrently keeping structures affordable. Adopting new code editions adds thousands of dollars onto the cost of housing because: (1) new code requirements tend to be more restrictive and more expensive to implement; (2) inspectors, design professionals, and builders must be trained on the new codes; (3) existing prototype plan sets must be reviewed by design professionals, re-designed and re-submitted for permits, and redistributed to subcontractors; (4) new code book sets must be purchased; and (5) contractual requirements often need to be renegotiated. The model codes also appear to be eroding an owner’s ability to choose to exceed the minimum standards by increasing the standards to where there is no longer the option to elect to exceed those standards proposed. Lastly, New Jersey is still undergoing its economic recovery and the business community, including the homebuilding industry, is struggling to maintain its foothold in the State. Any undue burdens on the building industry and consumers will only impede the State’s economic recovery and the revival of the building industry. We believe the NJ DCA needs to be mindful of these factors when considering certain areas of the model codes.

RESPONSE: The Department appreciates the NJBA’s support for its efforts in reviewing and analyzing code requirements. And the Department remains mindful of the need to evaluate new requirements in terms of the incorporation of innovative technologies, the advancement of building safety, and the costs of compliance. It should be noted that many advances in building technologies make construction more efficient. And with regard to existing prototype plans, as the UCC provides a six-month grace period for design professionals, permit applications may be

submitted based on existing prototype plans for six months following the adoption of modifications to a subcode. Furthermore, pursuant to the Permit Extension Act, prototype plans based on older editions of the national model codes have continued to be accepted.

Avalon Bay at Edgewater Fire

A number of commenters have taken this opportunity to offer suggestions with regard to changes to the code requirements applicable to multifamily construction (Group R-2) in the wake of a fire which took place at a large multifamily project, Avalon Bay at Edgewater, on January 21, 2015.

3. COMMENT: In light of the recent fire at Avalon Bay at Edgewater, the commenter urged the Department to extend the comment period for an additional 60 days to allow the Department, the Code Advisory Board, and its subcode committees additional time to consider all aspects of the New Jersey Uniform Construction Code with regard to this type of construction.

RESPONSE: The Department has been engaged in reviewing what happened during this fire and its implications for the Uniform Construction Code (UCC). The discussion of how best to prevent such significant property loss and what changes, if any, should be made to the State's Uniform Construction Code will continue. However, any changes arising out of this discussion must be made through a new proposal for public comment. Because no substantial change can be made upon adoption, there is no reason to delay adoption of the 2015 I Codes and the 2014 National Electrical Code. The current requirements that are the subject of this debate are not and cannot be altered by this adoption.

4. COMMENT: The Department should hold a public hearing to address the questions surrounding appropriate uses of suppression systems designed in accordance with National Fire Protection Association (NFPA) 13R, also known as partial sprinkler systems, and the related question of reasonable limits on the height, area, and location of buildings of combustible (Type V) construction.

RESPONSE: See the Response to Comment 3 above.

5. COMMENT: The following comment was offered by the New Jersey Apartment Association: As the UCC governs the design and construction of multifamily buildings across the State of New Jersey, any code change has the potential to have a significant impact on the multifamily industry and housing construction across the State. The Department should be mindful that every mandate increases the construction costs of apartment communities and exacerbates the shortage of affordable rental housing by limiting the production of new housing. Furthermore, multifamily construction has been a bright spot in the New Jersey economy, and we should be mindful of anything that could harm employment in, and the effectiveness of, this sector. Whenever possible, New Jersey should closely adhere to the national model codes, as the provisions and mandates in the model codes are carefully considered and vetted through a deliberative process, which involves the top fire safety experts and code officials from across the United States. The consensus-based codes development paradigm produces a set of code requirements that do not favor a particular product, industry, or technique, and because of its adoption in multiple jurisdictions, creates uniformity with design practices in other states and localities. As such close adherence to the national model codes is important to avoid

unnecessarily driving up housing construction costs or to make New Jersey an outlier as compared to other states.

Following the January 21, 2015, apartment fire in Edgewater, there have been public calls for the Department to deviate from the national standard codes and to impose New Jersey specific design requirements on apartment buildings, including, but not limited to: limiting construction materials to masonry and concrete, requiring automatic fire suppression systems to be installed in accordance with the NFPA 13 standard, and requiring firewalls be constructed of masonry. Certainly every fire improves our understanding of a building's performance. However, we should not be rash by upending a decades-long understanding as to the methods by which we develop multifamily housing after a single-fire event, however dramatic. This is especially true in the case of the Edgewater fire, given that every person was able to exit the building safely. We encourage the Department to carefully study the events surrounding the Edgewater fire and make public its findings so that all stakeholders can benefit from the results of this process. Having a complete picture of the events will enable the fire safety community to better evaluate potential building design or code changes. Additionally, the study should look into factors beyond codes, such as: the effectiveness of firefighting techniques, the process by which fire companies provide mutual aid, and the efficacy of the 9-1-1 system. Any change to the building code resulting from such an analysis should occur only after careful study and should be based on sound engineering principles. The International Codes Council has already begun the three year process of updating the 2015 code, and is the most appropriate forum for such deliberations. We appreciate the deliberative approach taken by DCA leadership and staff in responding to these concerns, and look forward to a continued dialog on our common objectives to make certain that housing is safe and affordable for all who call New Jersey home.

RESPONSE: See the Response to Comment 3 above.

6. COMMENT: A number of commenters, citing the Edgewater fire and recent fires in other parts of the country, argued that it is now clear that Type V construction is not appropriate within densely built areas and for certain occupancies. Fires of this magnitude have the potential for causing significant loss of life to citizens, firefighters, and other first responders along with damaging surrounding buildings. The commenters make reference to the New York City Building Code and its limits on Type V construction in heavily built areas. The New York City Building Code prohibits Type V construction in Manhattan, the Bronx, Brooklyn, and major portions of Queens and Staten Island. Many of New Jersey's communities adjacent to New York City have similar building and population densities, and, thus, are faced with the same challenges of dealing with structure fires with limited firefighting access and the potential loss of life of building occupants, fire fighters, and other first responders. In addition, the New York City Building Code prohibits Type V construction entirely for Groups R-1 and R-2 regardless of building or population density.

The commenters offer two suggested solutions to the identified concern with Type V construction. The first is to add a note g to Table 601 as follows: "Type V construction is not permitted where the population density within a community exceeds 8,000 people or more per square mile within the census tract a building is to be constructed based upon population data from the most recent census.

Exception: Local jurisdictions are permitted to set a population density threshold lower than 8,000 people per square mile."

The second is to revise Table 503 to prohibit Type V construction for buildings of Group R-1 or R-2 regardless of population or building density similar to the New York City Building Code.

RESPONSE: This suggestion is more appropriately addressed through the consensus process established for changes to the national model codes.

7. COMMENT: Quoting from the NFPA “Automatic Sprinkler Systems for Residential Occupancies Handbook,” 2013 edition, commenters point out the limits of the protection provided by sprinkler systems designed to comply with NFPA 13R. One commenter mentions testing conducted by Underwriters Laboratories documenting the quick failure of lightweight, composite wood joist/ceiling assemblies in tests without sprinklers and writes that, “although lightweight truss construction has greatly decreased the cost of residential construction in both time and material, such construction greatly increases fire spread and early structural collapse.” They posit that the NFPA committee focuses on fire data for the point of origin of a fire and whether any fire deaths occurred and argue that this ignores the fact that many of the large, destructive fires have started on the exterior of the building and traveled from the building’s exterior into the building’s concealed combustible spaces where there is no sprinkler protection. Citing ballot comments submitted by two NFPA 13R technical committee members, the commenters express concern that these fires present a life safety risk to occupants and to firefighters and point to the need to impose additional requirements both for life safety and to limit property loss. They offer four suggested changes to the building subcode (IBC) as follows:

(1) In Section 903.1.2, Residential systems, delete the words “unless specifically allowed by this code,” thus eliminating any trade off in height or area, egress, or passive protection

requirements for NFPA 13R systems due to the fact that these systems do not provide protection of concealed spaces.

(2) In Section 903.3.1.2, NFPA 13R Sprinkler systems, delete the new language (“The number of stories of Group R occupancies constructed in accordance with Sections 510.2 and 510.4 shall be measured from the horizontal assembly creating separate buildings.”) The commenters argue that allowing “pedestal” buildings, four-story residential buildings atop parking or other structures, is a misinterpretation of what it means to measure building height from the grade plane and allows the use of NFPA 13R systems in buildings taller than intended for protection by such systems as described in the NFPA handbook cited above. It was noted that there is an ICC Formal Technical Opinion (IFC Interpretation 43-03) stating that measurement is from the grade plane.

(3) A new Subsection 903.3.1.2.3 should be added to require protection of concealed spaces, as would be required for NFPA 13 systems, when NFPA 13R systems are installed. The commenters state that this change would maintain the other sprinkler design advantages of NFPA 13R systems while requiring protection in the concealed spaces.

(4) Section 903.3.1.2 should be modified to limit the use of NFPA 13R systems to buildings of Group R up to three stories in height measured from the grade plane. This modification is justified based on the reach of commonly available fire department ground ladders (24- and 35-foot extension ladders) and the ability of firefighters to rescue residents who might become trapped by the rapid spread of a fire, undetected, through a combustibile concealed space, such as an attic.

The commenters go on to discuss the changes made in response to the group home fire in New York in March, 2009, in which four residents died. They point to the shortcomings in the

fire data collected nationwide as a tool for analyzing the effectiveness of NFPA 13R systems. In concluding, they quote an article from the January, 2010 edition of the NFPA journal about the risks associated with fires that begin in concealed spaces.

RESPONSE: See the Response to Comment 3 above. Of the changes suggested, numbers (1) and (3) are more appropriately addressed through the consensus process for changes to the national model codes. In support of suggested change (2), the commenters cite an interpretation (IFC43-03) which describes how to measure the building height in feet, not the number of stories. Stores have been measured from the top of the podium since the inception of this concept. Suggested change number (4) is beyond the scope of the proposal, but will be considered by the Department as part of a possible future proposal.

8. COMMENT: The commenter noted that a system designed in accordance with NFPA 13R, such as that at Avalon Bay at Edgewater, is a life safety system. The first edition of NFPA 13R was introduced in 1989 “to provide the occupants of the structure with a high level of life safety at a manageable cost to the builder.” The use of NFPA 13 systems would provide protection in the concealed spaces. Through its NFPA 13R technical committee, the NFPA will be reviewing the standard. The commenter supports reliance on the consensus process for the development of and revisions to standards and suggests that the following options might be considered by the committee: limited sprinkler protection of nonsprinklered areas such as the perimeters of attic areas at building eaves, filling some nonsprinklered areas with noncombustible insulation, protection of some nonsprinklered areas with fire-retardant treated wood, more frequent

draftstopping or firestopping within nonsprinklered attic areas, establishing a maximum area for use of NFPA 13R systems.

RESPONSE: The Department thanks the commenter for this expression of support for reliance on the consensus process.

9. COMMENT: A group of Princeton residents shared their concerns with the current requirements for the construction of multifamily housing. They cite 13 large fires, of which 12 occurred since 2008, five were in occupied buildings, and five of the eight in buildings under construction caused damage to nearby occupied buildings. They recommend that multifamily housing of more than five units be of noncombustible construction as is required in Manhattan, the Bronx, Brooklyn, and defined portions of Queens and Staten Island (as per the New York City requirements) or, if lightweight wood construction is to be allowed, then additional requirements should be imposed governing the kind and quality of the materials used, the integrity of the sprinkler and fire wall design, and the inspection of the building under construction. They include with their comments a list of 19 specific recommendations for improving fire safety in multifamily construction, covering topics such as the use of NFPA 13 as opposed to 13R sprinkler systems, limiting or prohibiting the use of lightweight wood construction, attention to proper installation of firewalls, fireblocking and draftstopping, requiring permits and supervision for work involving welding or grinding, fire department training and ensuring that local fire departments have the resources necessary. And they urge public officials to place public safety and the public financial costs of these fires above the anticipated objections of developers.

RESPONSE: See the Response to Comment 3 above. All of the suggestions are beyond the scope of the instant rule proposal. The Department will consider limits on the use of NFPA 13R systems as part of a future proposal.

10. COMMENT: A working group should be formed with representatives of all aspects of the building industry to make sure that such a fire does not happen again.

RESPONSE: The Department thanks the commenter for this suggestion. The Department does rely upon the advice of the Uniform Construction Code Advisory Board and its subcode committees which include representatives with knowledge and experience in the matters covered by the UCC. And the Department notes that there already are a number of groups reviewing this issue and formulating recommendations. However, the Department will consider this suggestion for the formation of a special working group on this issue.

Sprinklers for One- and Two-Family Residential Construction

11. COMMENT: The State should rely on the national consensus process and adopt the 2015 International Residential Code (IRC) with its requirement for sprinkler protection in one- and two-family residences. This code adoption process is informed by the experience and expertise of the participating members and the requirements were arrived at after great debate.

Additionally, the commenter points out that there are provisions in the IRC which rely on the fact that these homes will have sprinklers, including a reduction in the required space between exterior walls and a reduction in the fire resistance rating of common walls in townhouse

construction. The commenter further notes that today's homes are typically larger and built of lightweight construction materials making them significantly more flammable. Finally, the commenter states that the State should adopt this requirement to protect builders, developers, and owners from liability for negligence. According to the commenter, "in a lawsuit for negligence, New Jersey courts will admit national safety codes as evidence of the standard of care, even if these codes do not have the force of law in New Jersey."

RESPONSE: Because a requirement for sprinkler protection in one- and two-family residences was not included in the proposed amendments, this is not a change that may be made upon adoption. The public debate over the benefits of installing sprinklers, which are well documented, and the imposition by law of the associated increased costs is ongoing. The Department will consider the commenters' arguments, and all of the other information being presented on this subject, for a possible future rule proposal. As of this writing, there is also pending legislation on this subject.

12. COMMENT: With the rebound of the housing industry, it is time to move forward with a requirement for sprinklers in one- and two-family construction. The requirement for sprinklers and the allowance of lightweight construction go hand in hand. The State should not be allowing one without the other. Eighty percent of the total fire deaths in the State over the last five years occurred in residential fires.

RESPONSE: See the Response to Comment 11 above.

13. COMMENT: The commenter cites historic fires, including the fatal boarding home fires in Keansburg and Bradley Beach in the early 1980s, the Great Adventure Fire in 1984, and the Seton Hall dormitory fire in 2001, and the State's quick and effective response. The commenter then questions the decision to omit sprinklers in one- and two-family dwellings. In response to concerns about increases in the cost of housing, the commenter points to the "trade-offs" allowed for sprinklered buildings. The commenter urges adoption of the 2015 IRC with the requirement for sprinklers to protect New Jersey's citizens and first responders.

RESPONSE: See the Response to Comment 11 above.

14. COMMENT: The commenter urges the Department to adopt the requirement for sprinkler protection in one- and two-family dwellings and cites the rebound in the housing market inasmuch as the depression in the housing market was given as a reason for failure to adopt the sprinkler requirement with the adoption of the 2009 IRC. According to the commenter, the additional cost associated with building a townhouse of 5A construction (as opposed to 5B which is allowed with sprinkler protection) is as much or more costly than providing fire sprinklers, thus making providing sprinklers cost neutral. The commenter asks that the Department respond specifically to the question of requiring sprinklers for townhouses where there is no additional cost associated with doing so.

RESPONSE: See the Response to Comment 11 above.

Portable Fire Extinguishers

15. COMMENT: With regard to the requirement for portable fire extinguishers, a number of commenters requested that the Line 1 exception proposed for inclusion in Section 906.1 be deleted. The commenters posited that adoption as proposed would not be in the best interest of fire safety for the businesses and citizens of the State of New Jersey. They cited a 2012 study conducted by the National Association of Fire Equipment Distributors (NAFED) that found that portable fire extinguishers are able to suppress fires 95 percent of the time. They further stated that, many times, because fire extinguishers are able to suppress fires during the incipient stage, the successful use of a fire extinguisher is unreported. The proposed amendment to Section 906.1 would reinstate an exception that waives the requirement for portable fire extinguishers from Group A, B, and E occupancies that are equipped with quick response sprinklers. According to the commenters, fire extinguishers play a key role in protecting lives and property; the elimination of fire extinguishers from these occupancies could lead to greater losses and more intense fires. The exception was removed from both the 2012 and the 2015 versions of the International Fire Code (IFC) and IBC. The ICC voted to remove this exception in the 2012 codes after considering a proposal from the National Association of State Fire Marshals (NASFM). NASFM, and other supporters of the exception's removal, rightly argued that exempting occupancies from fire extinguisher requirements can leave those buildings without a proper firefighting tool for small, controllable fires. Sprinklers are not a substitute for fire extinguishers. These fire protection tools are complementary.

One commenter offered the following additional supporting arguments: Citing a 2013 NFPA report, "U.S. Experience with Sprinklers," the commenter concluded that many fires are being suppressed by building occupants based on the fact that 83 percent of the fires reported in sprinklered buildings didn't grow large enough to activate the sprinklers. This commenter added

that, based on a Consumer Product Safety Commission survey, the results of which were published in 2009, 371,000 residential fires were suppressed annually using portable fire extinguishers. Finally, the commenter noted that portable extinguishers are cost effective and can be used safely and effectively by persons with little or no training.

RESPONSE: The Department does not disagree with the results of the above-mentioned study and report with respect to the effectiveness of fire extinguishers when used properly by trained people. However, immediate notification and evacuation of all building occupants remains the first priority. The option to install a faster responding sprinkler head, as contained in the UCC, adds to the overall protection of the occupants and building. Retaining this option leaves the choice to the building owner and design professional for Group A, B, and E occupancies. It should be noted that kitchens and other identified areas require fire extinguishers. Additionally, there often are issues with the misuse of extinguishers in Group E occupancies. And providing fire extinguishers increases initial costs and adds maintenance costs. For these reasons, the Department has decided to retain the current requirement.

N.J.A.C. 5:23-3.14 Building subcode

16. COMMENT: Traditionally, Chapter 1 of the IBC is deleted in its entirety and the administrative provisions of the UCC govern. There are provisions in Section 102.4, Referenced codes and standards, that give instructions on the use and application of the IBC and its referenced standards that should be retained. Specifically, Section 102.4.1, Conflicts, and 102.4.2, Provisions in referenced codes and standards, offer guidance on conflicts between the International Codes and referenced standards and the scope and applicability of the referenced

standards, including the applicability of the International Fire Code which is not adopted directly.

RESPONSE: Because this section was not proposed for inclusion, this is not a change which may be made upon adoption. While it may be argued that the adoption of Sections 102.4.1 and 102.4.2 would be helpful in clarifying the relationships between codes and referenced standards, these administrative sections would be incomplete. The questions of the relationship between a provision in a model code and the adopted administrative rules, a provision in a model code or referenced standard and a manufacturer's installation instructions or a conflict between the provisions of two different model codes would remain unaddressed. The Department will publish a Construction Code Communicator article to reiterate and to clarify the relationship between the provisions of rules, adopted model codes, referenced standards, and manufacturers' instructions. And the Department will consider a future rule proposal to codify these relationships.

17. COMMENT: The scoping of Group R-5 should be modified to change "separate means of egress" from each dwelling unit to "separate exit from each dwelling unit." The same correction should be made in the definition of Group R-5 in Section 310.1(5) of the IBC. This change would eliminate confusion among code users and ensure uniform application of the code. Beginning with the adoption of the 2009 International Codes, this change to use the term "separate means of egress" has been subject to differences in interpretation as to what constitutes a "separate means of egress." The IRC does not define "means of egress" while the IBC defines "means of egress" to include all exit discharge elements terminating at the public way. While this definition is appropriate for the IBC, for buildings of Group R-5 (for example, two-family

dwelling), it is acceptable for the means of egress to include an open exterior stairway which terminates at grade onto a landing or patio which is shared with the other dwelling unit. Using the term “exit” rather than “means of egress” would eliminate any differences in interpretation.

RESPONSE: The Department disagrees. The use of the term “means of egress” is appropriate as this term includes exit access, exit, and exit discharge, all of which must be independent in Group R-5 buildings.

18. COMMENT: A number of commenters noted that there are no changes proposed to New Jersey’s clarification of Section 602.3 of the building subcode. The commenters support retention of New Jersey’s language clarifying the requirements of Section 602.3 and the reference to Formal Technical Opinion (FTO) 14. The commenters add that Type III construction historically utilized non-combustible materials with similar structural properties to concrete (cast in place or precast) and concrete masonry units such as brick, stone, or glass block. The load bearing exterior walls are masonry construction. The language in the recent editions of the International Building Code cause confusion and misapplication and allow, in the opinion of the commenters, construction of Type V buildings masquerading as Type III buildings to the detriment of proper fire protection of structural elements.

Additionally, the commenters ask for New Jersey’s support of code change proposals submitted to address this issue in the International Building Code at the upcoming hearings in Memphis to correct what the commenters view as a defect in the model code language and to provide for uniform application of the requirements wherever the International Building Code is adopted.

RESPONSE: The Department thanks the commenters for this expression of support. (Note: The International Code Council's code change hearings took place in Memphis in April, 2015. The code change proposals mentioned by the commenter were disapproved.)

19. COMMENT: The NJBA recommends deleting both Exception #6 in Section 706.6, Vertical continuity, and the entirety of Section 706.6.2, Buildings with sloped roofs, since these provisions are confusing and possibly are in conflict with at least two other exceptions to Section 706.6. The NJBA suggests retaining Section 706.6 and Exceptions 1-5 as previously adopted in the 2009 IBC.

RESPONSE: The Department disagrees. This requirement is similar to that of stepped buildings in Section 706.6.1 and applies only if the roof slopes upward away from the fire wall at a slope greater than two units vertical in 12 units horizontal. The sloping roof presents a greater hazard to the building from fire exposure on either side than a roof at the same elevation on each side. The hazard would increase as the slope of the roof increases. There is no conflict with other exceptions in Section 706.6.

20. COMMENT: The proposed amendments again modify the IBC to retain the language of the 1996 BOCA National Building Code for standpipe system design and performance. The commenter disagrees with the continued use of the 1996 BOCA provisions and offers survey responses from career, volunteer, and combination fire departments in support of the position that there is a disconnect between the New Jersey fire service and the adopted code requirements

applicable to standpipes. Specifically, the fire service survey responses indicate that responding fire departments anticipate a standpipe system that will provide a residual pressure of 100 pounds per square inch (psi) and will support two to three hoselines. The commenter notes that training for firefighters is drawn from the most recent editions of the national model codes and referenced standards while New Jersey continues to use provisions from 1996. The commenter points out that, under NFPA 14, standpipe hose valves have been relocated to the intermediate landings of exit enclosures. This reduces the distance to the fire floor (thus increasing pressure) and facilitates exiting for building occupants on the floor below. But in New Jersey, the connection remains at the floor landing. Additionally, under the New Jersey modifications, the standpipe system will not support more than one hoseline. And the provisions of Bulletin 14-2 exacerbate the problem by extending the elimination of the requirement for residual standpipe system pressure to include buildings with NFPA 13R systems. As life safety systems, NFPA 13R systems do not provide the same coverage for protection of the building as NFPA 13 systems and should not be allowed the same trade off. This reflects a lack of understanding of the time required for fire departments to arrive at the scene and set up to extinguish a fire, during which time the fire continues to develop. Current fire department operations do not recognize the need for immediate connection to a hydrant-supplied water source, but rather depend on the standpipe system. This dependence is misplaced in New Jersey and likely will someday lead to a fire ground incident. The commenter cites changes in requirements incorporated into the national model codes since the Los Angeles Interstate Bank fire and the Meridian Plaza fire and urges New Jersey to bring its requirements current and into alignment with firefighting training and practice. Should the Department decline to do so, then the commenter urges the Department,

through the Division of Fire Safety, to change firefighter training curricula to reflect the diminished requirements for standpipe systems contained in the UCC.

RESPONSE: The modification, as proposed, allows a manual wet standpipe for systems designed in accordance with NFPA 14 while the riser piping continues to be sized for the required fire hose flow. The IBC allows manual wet standpipes to be installed in accordance with NFPA 14 when NFPA 13R systems are installed. The statement about the current fire fighter 1 (FF1) training is not correct. The current FF1 instruction is consistent with the current code requirements. The information for the FF1 program states that pressure of 150 psi must be supplied at the fire department connection unless another pressure is required and this pressure can be posted at the connection. The comment also contains a misstatement about the location of valves at intermediate landings under NFPA 14. This requirement is contained in the IBC at Section 905.4. The FF1 training program has the candidates connecting on the floor below the fire floor where the landing is larger than the intermediate landing and provides ease of hook up for the firefighters to the hose valve. The pressure loss is minimal and does not warrant a change in the way current training and connections are being done. Bulletin 14-2 was issued to provide guidance to code officials to allow a manual wet standpipe system as NFPA 14 currently permits. The adoption of this code change obviates the need for the bulletin. However, the bulletin does no harm; it will be withdrawn once the number of projects relying on earlier (pre-2015) editions of the IBC drops. The comment with regard to needed training to advise the fire service of appropriate fire ground operations for water supply, including an explanation of standpipe operations, is a good suggestion and has been shared with the Division of Fire Safety.

21. COMMENT: The 2015 IBC enhances the current requirement for prescriptive, passive fire protection between garages by adding a requirement for a self-closing on doors leading from

garages into living space. As proposed, the requirement for a self-closing device for the door between a garage and living space would be deleted, thus retaining the current level of protection for the separation between a garage and living space. The commenter notes that one of the arguments made when this was discussed at a meeting of the Uniform Construction Code Advisory Board was that such a device would hamper a person bringing groceries into the home. The commenter suggests that, as is done with a storm door, the garage door may be outfitted with a hold open device. These are commonly available and are not prohibited by the code section proposed for deletion. The commenter urges that the Department adopt the language of the 2015 IBC without revision, thus requiring the door closer.

RESPONSE: The change suggested by the commenter may not be made upon adoption. It would require a subsequent proposal by the Department. The Department will once again solicit the advice of the building and fire protection subcode committees on this topic.

22. COMMENT: Two commenters expressed opposition to allowing a key-operated lock on a main entry door in Group A buildings other than nightclubs with an occupant load of 300 or fewer. One commenter points out that, pursuant to the 2015 edition of the IBC, Section 1010.1.10, panic hardware is required in Group A spaces with an occupant load of 50 or more. Citing historic fires where loss of life was caused by locked egress doors, including the Iroquois Theater fire and the Coconut Grove fire, the commenter adds that the requirements of the code have been developed to protect occupants, not to protect property from security risks and he notes that studies show that at least 75 percent of occupants will use the same door they entered as an exit if an emergency occurs. Both commenters indicate that there are means of securing doors outfitted with panic hardware currently in use; the provisions of the 2009 IBC should be

retained. (See N.J.A.C. 5:23-3.14(b)9xvi, locks and latches, and xvii, panic and fire exit hardware.)

RESPONSE: The allowance for a locking device is not incompatible with the requirement for panic hardware. As per the requirements of the referenced section, 1010.1.9.3, there are three conditions for the use of a locking device: (1) it must be readily distinguished as locked; (2) it must be provided with a sign stating the door must remain unlocked while the building is occupied; and (3) the use of the lock is revocable by the construction official for cause. The Department believes that, with these safeguards in place, life safety and building security are both addressed.

23. COMMENT: The NJBA believes the Department's decision to eliminate the ANSI A117.1 Standard and N.J.A.C. 5:23-7 and to adopt Chapter 11 of the IBC is well founded. However, statistically, there are substantive differences in New Jersey's handicapped population that should be considered. Section 1105.1 requires 60 percent of all entrances to public buildings to be accessible, while N.J.A.C. 5:23-7.8 requires only 50 percent. As of the most recent statistical data available, the national average of adults having disabilities is 21.4 percent of the population, while in New Jersey, that rate is 16.2 percent of the population or 24.3 percent less than the national average (Source: Centers for Disease Control (CDC) – New Jersey Disability Status Overview – 2012). Additionally, the Centers for Disease Control (CDC) does not distinguish which disabilities in the aforementioned statistics require accessible entrances as all impairments, disabilities, and handicaps are considered disabled for reporting purposes. Taking this anomaly of statistical reporting into account, the handicapped population requiring an accessible entrance is considerably less than the 16.2 percent of the New Jersey population reported. The

substantive cost of an accessible entrance is typically not the entrance, but the accessible route. Given the topographical and geological diversity in New Jersey to achieve accessible routes and the additional cumulative costs of accessible entrances, accessible routes, and signage, NJBA believes that in diminutive buildings with two entrances, it is cost prohibitive to require a second accessible entrance for buildings only requiring two entrances. A building that requires three entrances at either 50 percent or 60 percent requires a second entrance and route to be accessible; at three entrances, it is a break even for either code. The substantive gain in the 60 percent change is when a building has four (or more) entrances and would require three of the four entrances to be accessible. Therefore, NJBA recommends retaining N.J.A.C. 5:23-7.6 and 7.8 for buildings requiring three or fewer entrances at 50 percent accessible.

RESPONSE: The requirement for 60 percent of the entrances to be accessible is a requirement in the Americans with Disabilities Act (ADA). As stated in the Summary published with the proposal, consistency with the ADA is necessary for a determination of equivalency. A determination of equivalency is of importance to the design professionals and commercial building owners in New Jersey because, once a determination of equivalency is made, projects that comply with New Jersey's accessibility standards will be presumed to comply with the ADA.

24. COMMENT: The NJBA recommends deleting Section 1105.1.3, Restricted entrances, based on the increase in accessible entrances and routes for larger buildings contained in the 2015 IBC. The previous comment for diminutive buildings, coupled with the cost prohibitive

and site specific difficulties associated with providing additional accessible routes to the restricted entrance(s), support this suggested change.

RESPONSE: This is a requirement in the ADA, and as such, will be retained for the reason stated in the Response to Comment 23 above.

25. COMMENT: One commenter objected to the deletion of Section 1210.3 requiring privacy partitions in toilet rooms.

RESPONSE: Because privacy partitions have not been required in the past, this would be a new requirement. Therefore, no such change can be made upon adoption. The requirement for toilet partitions was not included in the proposed amendments because it was not thought necessary. The Department has not received complaints that designers or installers are creating restrooms with more than one toilet fixture and no privacy partitions. The Department will take this under consideration, and if such a rule is now deemed necessary, a new proposal will be published.

26. COMMENT: The reference to ASCE/SEI standard 24, “Flood Resistant Design and Construction,” in Chapter 35 of the 2015 IBC should be corrected to reflect the fact that this is a 2014 edition, not a 2013 edition.

RESPONSE: The commenter is correct. This has been identified as errata to the First Printing of the 2015 IBC; the edition has been corrected in the code.

Elevator Requirements

27. COMMENT: The National Elevator Industry Inc. (NEII) supports the adoption of the most recent edition of the national standard for elevators, the ASME A17.1/CSA B44 Safety Code for Elevators and Escalators, without modification. This standard represents the state of the art and is developed and refined by hundreds of experts representing all aspects of the elevator industry. The commenter also notes that the 2015 IBC itself includes significant revisions which will improve the elevator requirements of the UCC. The NEII also supports the change to Section 3003.3 to reference the A17.1/B44 specifications for standardized fire service elevator keys and the accompanying deletion of the conflicting key requirement found in the 2015 International Fire Code.

RESPONSE: The Department thanks the commenter for this expression of support.

28. COMMENT: The NEII recommends adoption of the Performance-Based Code (PBC). Section 3001.2, Referenced standards, should be amended to delete ASME Section 1.2 as an exception. Excepting Section 1.2 and other references to ASME A17.7-2007/CSA B44.7-07 PBC may have been justified when the 2007 edition of A17.1/B44 was adopted and the PBC was considered “new” and “untested.” However, 37 states and the City of Chicago now have the PBC as part of their codes. None of these jurisdictions has reported enforcement difficulties and NEII is not aware of any safety issues arising as a result of use of the PBC. New Jersey should recognize ASME A17.7/CSA B44.7 given its widespread adoption and demonstrated seven year success.

RESPONSE: Because the PBC has not previously been adopted for use in New Jersey, and has been proposed for deletion, such a change cannot be made upon adoption. Use of the PBC has been discussed on several occasions in the past. The PBC is for the purpose of addressing new

technologies. In New Jersey, compliance with the requirements of the adopted standard is verified not only during the permit process, but also during cyclical inspections. For this reason, designs which rely on alternatives to the adopted standard (ASME A17.1) are approved through the variation process, pursuant to N.J.A.C. 5:23-2.9, which assures that there is documentation of what was approved.

N.J.A.C. 5:23-3.16 Electrical subcode

29. COMMENT: The summary statement describing the proposed amendment to Section 210.8(A), Ground-fault circuit interrupter protection for personnel, is not accurate. The 2014 code requires GFCI protection within six feet of a sink, not a water source. In its current form, GFCI protection is required in a laundry area whether or not there is a sink. In this new edition, the protection would be required only if a sink is installed within the laundry area.

RESPONSE: The Department thanks the commenter for this clarification. As this is not a comment on the rule, no action is necessary.

30. COMMENT: With regard to Section 210.12 of the National Electrical Code (NEC), the requirement for arc-fault circuit interrupter protection, the NJBA believes arc fault protection in locations where appliances and other mechanical equipment cause frequent arcs will be problematic. If people are away from their homes when an arc fault circuit pops on a refrigerator or freezer located in the kitchen or perhaps a spare refrigerator or freezer in a garage or basement, it could result in considerable loss of food and substantial expense to replace. NJBA recommends retaining 2011 NEC Section 210.12 (A) with the Exceptions 1 – 3 and (B).

RESPONSE: The use of arc fault circuit interrupter protection has not been tested in kitchens or laundry areas. The question of nuisance tripping was raised during the code change hearings on the requirement to expand the use of arc fault circuit interrupter protection to these areas. However, it appears that only anecdotal information is available on nuisance tripping. The Department recognizes that this lack of information on the loads that may lead to nuisance tripping is problematic. Accordingly, the Department has decided to preserve the status quo. The extension of the requirement for arc fault circuit interrupter protection to kitchens and laundry areas is not being adopted. It is hoped that there will be information and research available from other jurisdictions and that the devices themselves will be improved in response to support extending this requirement in a future code adoption.

31. COMMENT: Article 690.47(D), Additional Auxiliary Electrodes for Array Grounding, of the 2014 NEC should be deleted as this requirement could potentially create a hazardous condition to persons or property. The auxiliary electrodes required present the possibility of a sufficient voltage gradient between the auxiliary electrode and the mandatory existing grounding electrode system. This article serves no real purpose. The intent was to protect roof-mounted solar photovoltaic arrays from lightning. NFPA 70 (the NEC) is not a design specification for lightning protection and therefore cannot be relied upon for lightning protection. If lightning protection is to be a requirement for roof mounted photovoltaic systems, NFPA 780 should be utilized. The requirement in 690.47(D) is far too broad in its application as no clear direction is presented for the location of the auxiliary electrode. This leaves too much open for interpretation and presents difficulties in enforcement. Allowing for a voltage gradient between the auxiliary electrode and the existing grounding electrode system could allow for current through unintended areas that may be in contact with the bonding conductor between the two electrodes

as well as direct stray voltage to the sensitive electronic equipment of the solar photovoltaic system. This could be disastrous to the equipment the code is intended to protect. A safer solution is to rely on the existing grounding electrode system. This limits the grounding electrode system to one point of reference. The commenter suggests retaining the requirements of Article 690.47 of the 2011 NEC.

RESPONSE: The Department thanks the commenter and agrees. As such, the text of the Article 690.47(D) is being deleted upon adoption, thereby retaining the provisions of the currently adopted electrical subcode (2011 National Electrical Code) and maintaining status quo.

32. COMMENT: The commenter requests that a new section 336.10(8) be added to allow Type TC-ER cable to be installed as per the requirements of Part II Article 334 and Part II of Article 340. The commenter argues that Type TC-ER cable should be permitted to be utilized in the same fashion as type NM cable. Although originally designed for industrial applications, TC-ER cable has applications in commercial and residential uses in conjunction with the installation of automatic standby generators. At least one major manufacturer of automatic standby generators utilizes Class 1 wiring between the generator and the transfer switch. The use of TC-ER cable would enable an electrician a safe and efficient option for installing both the power and control wiring between an automatic transfer switch and generator using one cable. Type TC-ER cable has been tested and exceeds the crush and impact ratings of NM and SE cable, both of which are permitted to be installed without a raceway in commercial and residential applications. Type TC-ER cable meets the crush and impact rating of Type MC cable. The State of Washington has approved the use of Type TC-ER cable per the requirements of NEC/2014 334.

RESPONSE: The suggested change should be submitted for consideration by the National Fire Protection Association (NFPA). This suggestion is more appropriately addressed through the process established for changes to national standards.

N.J.A.C. 5:23-3.18 Energy subcode

33. COMMENT: Several commenters expressed support for adoption of the most recent editions of the national model codes for energy conservation and touted the importance of long-term energy savings, enumerating the many benefits of adoption of more stringent requirements. One commenter expressed support for the Department's thoroughness in balancing savings generating by increased energy efficiency with construction costs and noted that compliance with the 2015 IECC offers a clear value to homeowners with a minimal cost recovery timeframe and substantial annual savings. The requirements for both residential and commercial buildings are developed through a consensus process involving experts in energy efficiency, building design and performance, state and local government officials, product manufacturers, architects and builders and adoption of these requirements helps to keep the State on track with achievement of its energy efficiency goals. One commenter also pointed to the ease of verifying compliance through the use of available free software, including REScheck and COMcheck. Another commenter pointed to the Energy Rating Index compliance option, contained in the 2015 IECC, which will allow additional flexibility for New Jersey builders to achieve energy efficiency gains. The commenter also noted that the adoption of the 2015 International Energy Conservation Code (IECC) and the 2013 edition of ASHRAE 90.1, the referenced standard for

commercial buildings, will bring New Jersey into alignment with Federal requirements. (The U.S. Department of Energy (US DOE) has already issued a final determination requiring states to adopt energy conservation requirements which meet or exceed the requirements of ASHRAE 90.1-2013 by September 28, 2016, and the US DOE has made a preliminary determination with regard to the 2015 IECC for residential energy conservation requirements.)

RESPONSE: The Department thanks the commenters for these expressions of support for adoption of the 2015 IECC and of AHSRAE 90.1-2013 and for the accompanying discussions of the benefits to society and to individual building or homeowners.

34. COMMENT: The Department should adopt the requirements of the 2015 IECC without amendment, including the requirements of Section 402.4.1 for homes to meet the air barrier and insulation requirements and to be tested to document compliance. The 2015 IECC requires both testing and inspection. However, as proposed, the applicant would have the option of verifying compliance through inspection or testing. A visual inspection is not nearly as effective as a blower door test. And a visual inspection before the installation of drywall does not guarantee building tightness. Penetrations may be added after that inspection, attic access panels and doors may not be weatherstripped and air leakage penetrations in the drywall can remain. The specific instructions for improving the building's air tightness and requirements for the proper installation of insulation contained in Table R402.4.1.1 and the air leakage test both are necessary and the State should not treat them as independent requirements with an "either-or" option. New Jersey has a substantial number of Energy Star rated homes, including all State-financed affordable housing, indicating that there is a robust energy rater community that can assure ratings are

conducted properly and in a timely manner. Another commenter, urging adoption of the testing requirement, suggested that, if three air changes per hour is deemed too stringent, then perhaps the mandatory testing could be phased in or a slightly relaxed tightness requirement, for example, four air changes per hour or concessions for smaller multifamily units, could be implemented rather than abandoning the air leakage test requirement.

RESPONSE: The modification to Section 402.4.1 maintains the 2009 option of confirming compliance with the air barrier portion of the building thermal envelope requirements by inspection or by testing. With New Jersey's rigorous inspection schedule and the use of an air barrier checklist, a visual inspection done by both the contractor and the local inspector may be considered as good as a "blower door" test without adding cost to the overall project. Regardless of the air change test criteria, the building owner always has the option to do a test in addition to the visual inspection.

35. COMMENT: The summary statement describing this section indicates that the code requirements will remain the same. Does this mean that the enforcement remains the same, with the option of visual inspection or testing to verify compliance as described in the comment above, or does it mean that the seven air changes per hour, as contained in the 2009 IECC, will remain instead of the three air changes per hour required by the 2015 IECC? If the Department is retaining the requirement for seven air changes per hour, then New Jersey will be missing an opportunity to reduce significantly the amount of energy consumed in its housing stock over the life of these homes. Using the analyses of energy savings accompanying the rule proposal, and

estimating the incremental cost of moving from seven air changes per hour to three at \$300, the cost is very minimal as compared to the energy savings over the life of the home.

RESPONSE: As stated in the Response to Comment 34 above, the 2009 option of visual inspection or test will remain. The 2015 criteria (three air changes per hour) will be used if the test option is chosen.

36. COMMENT: The NJBA supports the intent of the 2015 IECC to limit air leakage in the thermal envelope through proper installation of the air barrier and insulation components and testing of air leakage in accordance with recognized standards for the performance of this test. However, the proposed language in Section R402.4.1.2 does not differentiate between single-family and multifamily units. While the air leakage threshold of “not exceeding three air changes per hour” is achievable in single-family construction, where all the boundaries of the dwelling unit are connected to the exterior and readily treated by generally accepted air sealing methods, this is not the case with multifamily construction. In multifamily construction, dwelling unit boundaries include wall and floor ceiling assemblies that are: (1) not connected to the exterior, and therefore, cannot be directly associated with energy use or energy savings; and (2) comprised of assemblies that are not easily air sealed with general accepted methodologies and materials that are also recognized as components of fire resistance rated assemblies and/or assemblies that comply with sound transmission class (STC) requirements.

Because there is no distinction in the proposed language between dwelling types, NJBA recommends the DCA adopt the requirement for air leakage testing proposed in Section R402.4.1.2, but retain the requirement of “less than seven air changes per hour” from Section

R402.4.1.2 of the 2009 IECC. Therefore, the first sentence of Section R402.4.1.2 would be modified to read as follows: “The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding seven air changes per hour.”

RESPONSE: As stated above, the Department is retaining the 2009 option of using a visual inspection or test to verify compliance. Owners may use either; therefore, there would be no reason to retain the 2009 air change rate. Building thermal envelopes constructed correctly should yield a building which will meet this test. However, the test is not required where visual inspection is used to verify compliance.

37. COMMENT: When presented for inclusion in the IECC, the proposal for the hot water piping insulation at R403.5.3 was based on an argument of energy savings, but no data substantiating the energy savings or the cost effectiveness associated with these measures were presented in support of this proposal. In the absence of a cost effectiveness study for these measures by the proponent at the national level (Mr. Gary Klein), NJBA opposes adoption of this section and proposes retaining the 2009 IECC Section 403.4 instead.

RESPONSE: The 2009 IECC required R-2 insulation on all hot water piping. The 2015 IECC is more specific and provides six criteria for piping within the system which must meet the insulation requirement. The increase in cost in going to R-3 insulation from R-2 would be negligible, and must be coupled with the fact that insulation would now be required only in defined locations. If there is any increase in cost at all, given that some portions of the piping would not now require insulation, that increase would not be significant and the benefit in energy savings in insulating identified portions of the system, based on the locations where heat may be

lost, provides a measurable benefit. The question as to whether this was adequately documented at the International Code Council's code change hearings is not one the response to which would warrant New Jersey deviating from the IECC on this point.

38. COMMENT: The Department should adopt the requirements of the 2015 IECC applicable to existing buildings rather than relying on the requirements contained in the rehabilitation subcode (N.J.A.C. 5:23-6). As existing homes are remodeled or updated or as additions are built, the State should take advantage of the opportunity to achieve improvements in energy efficiency. The Department should adopt Chapter 5 of the IECC, applicable to projects in existing buildings, and amend the rehabilitation subcode to reference it or undertake a review the rehabilitation subcode and make amendments to coordinate the energy conservation requirements for alterations and additions to existing buildings with the requirements applicable to new construction.

RESPONSE: It is the Department's position that the items included in the existing buildings provisions of the IECC are already covered within the rehabilitation subcode. However, a review is underway to update the rehabilitation subcode and the Department staff will verify that this is the case as part of this review.

N.J.A.C. 5:23-3.21 One- and two-family dwelling subcode

39. COMMENT: At N.J.A.C. 5:23-3.21(c)3i, in Section R300, height and area limitations, the proposed amendment would allow an increase in the height of Group R-5 buildings provided that a fire sprinkler system complying with NFPA 13D or with Section P2904 is installed. This

proposal would allow the same increase in height for a sprinkler system complying with one of these standards as is currently allowed for sprinkler systems complying with NFPA 13 or 13R. Similarly, the proposed amendments remove the area limitation for a one- or two-family dwelling or an attached single-family townhouse with a sprinkler system installed in accordance with NFPA 13D or P2904. The commenter supports these proposed amendments as they would provide for consistency with the unamended 2015 edition of the IRC while affording the protection of a fire sprinkler system specifically intended for use in these types of buildings.

RESPONSE: The Department thanks the commenter for this expression of support.

40. COMMENT: At N.J.A.C. 5:23-3.21(c)3x, Section R302.5.1 is revised to delete the requirement for a self-closing device on doors connecting a garage with living space. The commenter opposes this proposed amendment. (See Comment 21 on the building subcode.)

RESPONSE: As stated in the Response to Comment 21, the change suggested by the commenter may not be made upon adoption. It would require a subsequent proposal by the Department. The Department will once again solicit the advice of the building and fire protection subcode committees on this topic.

41. COMMENT: Section 314.3, Location, should be amended to require additional smoke alarms in dwellings when the interior area for a given level, excluding garage areas, is greater than 1,000 square feet. The location of additional smoke alarms should be in accordance with NFPA 72. And there should be an exception for dwellings protected throughout by a fire sprinkler system. If the State intends to delete the requirement for residential sprinkler systems,

then, in larger dwellings, with larger floor areas, the additional smoke alarms would provide the occupants with earlier notification of a fire.

RESPONSE: This suggestion is more appropriately addressed through the consensus process established for changes to the national model codes.

42. COMMENT: The wind speed map upon which the requirements of the 2015 IRC are based uses a wind speed designated as ultimate wind speed, (Vult). The contour line for the 120 mph (Vult) is approximately the same as the contour line for the 108 mph (V3s) that was used in the 2009 IRC. The commenter posits that the prescriptive wind design requirements presented in the IRC are not sufficient to provide adequately for design of residential structures located within wind zones of 120 mph (Vult) and above. Professional design should be required to address all of the loads that must be considered. Similarly, the commenter argues that professional design should be required for manufactured homes in such high wind areas. In support of these comments, a series of 24 sample designs were submitted to demonstrate the areas where following the prescriptive requirements of the IRC might produce a substandard design.

RESPONSE: The wind maps are based on ASCE 7-2010 which is a consensus standard published and maintained by the Structural Engineering Institute of the American Society of Civil Engineers (SEI/ASCE). The purpose of this change is to bring the wind provisions of the IRC in line with the 2015 IBC and ASCE 7-10. ASCE 7 has been a referenced standard of the IBC since its inception, and as such, it is well known to the building community. ASCE 7 is a nationally-recognized consensus standard developed in full compliance with the ASCE Rules for Standards Committees. The ASCE standards process is fully accredited by the American National Standards Institute (ANSI).

The updated wind maps are based on a new and more complete analysis of hurricane characteristics performed over the 10 years. New data and research have been developed that indicate that the hurricane wind speeds provided in the current maps of the IBC-09, IRC-09, and ASCE-05 are too conservative and need to be adjusted downward. Significantly more hurricane data have become available thereby allowing for substantial improvements in the hurricane simulation model that is used to create the wind speed maps.

43. COMMENT: Two commenters wrote in support of straw bale construction as a sustainable alternative and urged the adoption of Appendix R, Light Straw-Clay Construction, and Appendix S, Straw Bale Construction.

RESPONSE: The Department thanks the commenters for these expressions of support for adoption of the appendices.

Summary of Agency-Initiated Changes:

1. At N.J.A.C. 5:23-3.14(b)2xxxv, the definition of the term “substantial damage” is being deleted as the term is not used in the New Jersey edition of the International Building Code.
2. At N.J.A.C. 5:23-3.14(b)3xvii, a cross reference is corrected.
3. At N.J.A.C. 5:23-3.14(b)5iii(13), by replacing “7” with “8” as a replacement for “UL” under construction Type IA for Group H-4 S in Table 504.4, an error in the proposal is corrected and the current requirement is retained. The table in the 2009 IBC establishes the maximum number of stories for a Group H-4 non-sprinklered building. In Section 504.2 of the 2009 edition, an

increase of one story is permitted for a Group H-4 building that is sprinklered. In the 2015 edition, Table 504.4 incorporates the text of Section 504.2 of the 2009 edition by adding a cell in the table for sprinklered buildings. As such, the current requirement allows for a sprinklered Group H-4 building to be 8 stories in height, thus maintaining status quo. Additionally, the proposed recodification of subparagraphs (b)6iv through viii is corrected upon adoption as the proposal had two subparagraphs proposed for recodification as (b)5iiii.

4. At N.J.A.C. 5:23-3.14(b)5iv (recodified on adoption as (b)5v), the current requirements are being retained with regard to the inclusion of the maximum allowable area for non-sprinklered buildings of Group H or Group I. While it is true that these occupancies are required to be provided with sprinkler systems in all cases, in order to calculate the allowable area increase due to frontage increase, the non-sprinklered allowable area needs to be provided.

5. At N.J.A.C. 5:23-3.14(b)10vi, the cross-references for “small buildings” contained in Sections 1104.4.1 and 1104.4.2 have been corrected.

6. At N.J.A.C. 5:23-3.14(b)10xxxiii, the language applicable to COAH units, currently contained in N.J.A.C. 5:23-7.5(c)2i, is being retained. It was an oversight that this language was not included in the proposal. This language addresses the statutory requirement at N.J.S.A. 52:27D-123.15.b.

7. At N.J.A.C. 5:23-3.14(b)10xxxvii (recodified on adoption as (b)10xxxviii), the citation to Section 1107.7.3 has been corrected to 1107.7.2.

8. At N.J.A.C. 5:23-3.14(b)10lx, a new subparagraph is added to delete the requirements for enhanced reach ranges for lavatories, thus retaining the current requirements. There currently are no requirements for these enhanced reach ranges in the Barrier Free Subcode (N.J.A.C. 5:23-

7) or the Americans with Disabilities Act. The current requirements of the Barrier Free Subcode and the Americans with Disabilities Act establish the standards for accessible and usable buildings in facilities for buildings constructed in the State of New Jersey. The requirement contained in the 2015 IBC for enhanced reach ranges exceeds both of these standards. It is the Department's position that this exceedance is unfounded, and, therefore, the Department is maintaining the status quo by deleting the requirement upon adoption.

9. At N.J.A.C. 5:23-3.14(b)10xxxix (recodified on adoption as (b)10xli), the cross-reference has been corrected in 2.1 from "this subchapter" to "Section 1104.4.1," and in 2.4, the terminology has been updated ("group" as opposed to "use group") and the word "occupancies" has been added for clarity.

10. At N.J.A.C. 5:23-3.14(b)10xlvi (recodified on adoption as (b)10xlvi), an exception has been deleted to retain the current requirements of the barrier free subcode. The exception to item #1 in Section 1111.1, which is deleted upon adoption, would allow the accessible parking signage be eliminated for parking lots with four or fewer spaces. This is inconsistent with the New Jersey Handicapped Parking Law as well as the current Barrier Free Subcode; thus, by deleting this exception, the status quo will be maintained.

11. At N.J.A.C. 5:23-3.14(b)16xxvi, seismic category "B" is added as both "B" and "C" should be deleted for seismic isolation systems. (See N.J.A.C. 5:23-3.14(b)16xxx.)

12. N.J.A.C. 5:23-3.14(b)21iv is being deleted upon adoption. P.L. 2015, c. 21 (N.J.S.A. 2:27D-123.14), which was signed into law on February 6, 2015, and took effect immediately, modifies the elevator requirements of the Uniform Construction Code Act to match those of the International Building Code, herein adopted as the building subcode. This statutory change

makes the existing amendment to the model code, which reflected the previous statutory language, obsolete.

13. At N.J.A.C. 5:23-3.14(b)22iv and 3.21(c)3xlvi, the language at item 6 in each changing references to the International Plumbing Code to the National Standards Plumbing Code in IBC Section 3109.2 and IRC Section R326.1, respectively, is deleted because all references to the International Plumbing Code are replaced with reference to the adopted plumbing subcode as per N.J.A.C. 5:23-3.14(a)2 and 3.21(c)20.

14. At N.J.A.C. 5:23-3.21(c)8ii, Section R905.1.2 is added to maintain the status quo. The deleted sections make reference to Section R905.1.2. In the 2009 IRC, the requirements for ice barriers are located within the text for each type of roof covering. In the 2015 edition, the requirement is located in the charging text, thus eliminating the need for the language at each of the material specific sections (with the exception of 905.16.4.1 for photovoltaic shingles). The amendment being made upon adoption replaces the current amendment at N.J.A.C. 5:23-3.21(c)8ii which amends the text in the material specific sections with the same amendment in the charging text (905.1.2), thus the status quo is maintained.

Federal Standards Statement

No Federal standards analysis is required for the adopted amendments and repeals because the amendments and repeals are not being adopted in order to implement, comply with, or participate in any program established under Federal law or under a State law that incorporates or refers to Federal law, standards, or requirements. The sole exceptions are found in the adopted amendments to N.J.A.C. 5:23-3.18 which would bring New Jersey into compliance with the U.S. Department of Energy requirements promulgated pursuant to Title III

of the Federal Energy Conservation and Production Act of 1976, as amended, and in the adopted amendments to adopt the accessibility requirements contained in Chapter 11 of the IBC. The ICC has made an effort to ensure that the provisions of Chapter 11 comply with those of the Americans with Disabilities Act (ADA). (For a more detailed discussion, please see the Summary statement in the proposal at 47 N.J.R. 9(a).)

Full text of the adopted amendments follows (addition to proposal indicated in boldface with asterisks ***thus***; deletions from proposal indicated in brackets with asterisks ***[thus]***):

5:23-3.14 Building subcode

(a) (No change.)

(b) The following chapters of the building subcode are modified as follows:

1. (No change.)

2. Chapter 2, Definitions, shall be amended as follows:

i. – xxxiv. (No change from proposal.)

xxxv. The definition of the terms “substantial improvement*[*]**,” “**substantial damage,***” and “**substantial structural damage**” shall be deleted.

xxxvi. (No change from proposal.)

3. Chapter 3, Use and Occupancy Classification, shall be amended as follows:

i. – xvi. (No change from proposal.)

xvii. New Section 310.7, Residential Group R-5, shall be inserted as follows:

“Residential Group R-5 occupancies shall include all detached one- and two-family dwellings not more than three stories in height with a separate means of egress and multiple single-family townhouses not more than three stories in height with a separate means of egress designed and constructed in accordance with the International Residential Code. This Group shall also include:

Care facilities that provide accommodations for five or fewer persons receiving care

Single residential occupancies, accessory to a dwelling unit, having no more than five roomers or lodgers. (Single occupancies, accessory to a dwelling unit, having more than five roomers or lodgers shall be classified as Group R-2 or I-1, as appropriate.)

Group Homes with 5 or fewer occupants in accordance with Section *[908.3.4]*

308.3.4

Rooming houses with five or fewer residents.”

4. (No change from proposal.)

5. Chapter 5, General Building Heights and Areas, shall be amended as follows:

i. – ii. (No change from proposal.)

iii. Table 504.4, ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE, shall be amended as follows:

(1) – (12) (No change from proposal.)

(13) Under construction Type IA for Group H-4 S, "UL" shall be deleted and *["7"]* *["8"]* shall be inserted. In addition, under construction Type IIIA for Group H-4 S, "6" shall be deleted and "5" shall be inserted.

(14) – (25) (No change from proposal.)

[iii.] *iv.* In Section 505.2.3, Openness, Exception 5 shall be deleted in its entirety.

[iv.] *v.* Table 506.2, ALLOWABLE AREA FACTOR IN SQUARE FEET*,* shall be amended as follows:

(1) – (2) (No change from proposal.)

[(3) Under Occupancy Classifications H-1, H-2, H-3, H-4, and H-5, the row that begins with NS shall be deleted.]

[(4)] *["3"]* (No change in text from proposal.)

[(5) Under Occupancy Classifications I-1, I-2, and I-3, the row that begins with NS shall be deleted.]

Recodify proposed (6) – (7) as *["4"] – ["5"]* (No change in text from proposal.)

Recodify proposed v. – vii. as *vi. – viii.* (No change in text from proposal.)

6. – 9. (No change from proposal.)

10. Chapter 11, Accessibility, shall be amended as follows:

i. – v. (No change from proposal.)

vi. Section 1104.1, Multilevel buildings and facilities, shall be deleted and the following shall be inserted:

“1104.4 Multilevel nonresidential buildings and multilevel buildings of Group R-1.

1104.4.1 Small Buildings. Small buildings, defined as those with a total gross enclosed floor area of less than 10,000 square feet, shall be required to have at least one accessible entrance on the ground (or first) floor and accessible interior building features on all floors. Except as provided in *[(a)li through iv below]* ***Sections 1104.4.1.1 – 1104.4.1.4***, small buildings that are not more than two stories shall not be required to have an elevator(s) to provide a vertical accessible route between floors. Small buildings that are three or more stories shall be required to have an elevator(s) to provide a vertical accessible route between floors; however, in such buildings, floors that are less than 3,000 square feet or floors with only mechanical equipment shall not be required to be served by an elevator.

1104.4.1.1 Regardless of the square footage of the buildings or floors, buildings of two or more stories that are owned and occupied by public entities shall provide a vertical accessible route between floors.

1104.4.1.2. Regardless of the square footage of the buildings or floors, buildings of two or more stories that house public transit stations or airport passenger terminals shall provide a vertical accessible route between floors.

1104.4.1.3 Regardless of the square footage of the buildings or floors, buildings of two or more stories that house the professional offices of health care providers shall provide a vertical accessible route between floors.

1104.4.1.4 Regardless of the square footage of the buildings or floors, buildings of two or more stories that house shopping centers or shopping malls shall provide a vertical accessible route between floors.

1104.4.1.4.1 For the purposes of applying this requirement, a shopping center or shopping mall shall mean a building or a series of buildings on a common site, under common ownership or control, or developed as one project or as a series of related projects housing five or more sales or rental establishments.

1104.4.2 Large buildings. Large buildings, defined as those with a total gross enclosed floor area of 10,000 square feet or more, shall provide the accessible building features required of small buildings in *[(a)1 above]* ***Section 1104.4.1***. In addition, large buildings shall be required to have an elevator(s) to provide a vertical accessible route between floors; however, in such buildings, floors that are less than 3,000 square feet or floors with only mechanical equipment shall not be required to be served by an elevator.

1104.4.2.1 Where facilities for employees, including rest rooms, lunch rooms, and lockers, and public facilities, including rest rooms and drinking fountains, are provided on a floor or mezzanine that is not required to be served by an elevator and where no vertical accessible route is provided, the facilities provided on the floor or mezzanine must also be provided on the accessible level.

1104.4.2.2 A limited use limited application elevator that complies with ANSI/ASME A17.1 adopted by reference in the building subcode may be used to provide a vertical accessible route to the floor or mezzanine provided that the travel distance does not exceed 25 feet.

1104.4.3 For the purposes of applying these provisions, buildings separated by firewalls with penetrations intended for human passage shall not constitute separate buildings.

1104.4.4 The following provisions shall apply to a nonresidential building required to be accessible, whether a large building or a small building.

1104.4.4.1 An accessible route available to the general public shall not pass through kitchens, storage rooms, or similar spaces.

1104.4.4.2 In buildings, facilities, or portions thereof that primarily serve children, accessible facilities that comply with the provisions of this subchapter for use by adults shall be provided.”

vii. - xxxii. (No change from proposal.)

***xxxiii. Insert new section 1107.6.5 as follows: “1107.6.5 COAH Units. The exemption for townhouses and multistory units notwithstanding, multistory or multifloor townhouses for which credit is sought for low or moderate income housing through the Council on Affordable Housing (COAH) shall have the following features, which shall comply with the standards for Type A dwelling units per ICC/ANSI A117.1:**

i. An adaptable entrance, with the plans for the adaptation to provide an accessible entrance;

(1) For the purposes of fulfilling this requirement, the use of a platform lift or a limited use limited application elevator shall be acceptable;

ii. An adaptable toilet and bathing facility on the first floor;

iii. An adaptable kitchen on the first floor;

iv. An accessible interior route of travel;

(1) An interior accessible route of travel shall not be required between stories; and

v. An adaptable room that can be used as a bedroom, with a door or the casing for the installation of a door, on the first floor.”*

Recodify proposed xxxiii. – xxxvi. as ***xxxiv. – xxxvii.*** (No change in text from proposal.)

[xxxvii.]* ***xxxviii.** Section 1107.7.4, Site impracticality, shall be renumbered as Section ***[1107.7.3]* ***1107.7.2***** and “Type B units” in the third line of the section and in Items 1, 2, 3 and 4, shall be deleted and “Type A units” inserted in its place.

[xxxviii.]* ***xxxix.** (No change in text from proposal.)

xl. In Section 1109.2.3, Lavatories, the last sentence shall be deleted.

[xxxix.]* ***xli.** In Section 1109.7, Elevators, insert the following exceptions:

“Exceptions:

1. An elevator that provides an accessible route within an individual dwelling unit shall not be required to comply with the dimensional requirements of an accessible elevator.

2. A limited use/limited application elevator that complies with ANSI/ASME A17.1 adopted by reference in the building subcode shall be allowed to provide a vertical accessible route in the following buildings or tenancies, provided that the travel distance of the device does not exceed 25 feet:

2.1 In small buildings as defined in *[this subchapter]* **Section 1104.4.1**;

2.2 In individual tenancies of less than 10,000 square feet in buildings of 10,000 square feet or more;

2.3 To serve floors or mezzanines of less than 3,000 square feet; or

2.4 In *[Use]* Group *[s]* A-3, places of religious worship, or **Group E occupancies** of any size.”

Recodify proposed xl. – xlv. as **xlii. – xlvii.** (No change in text from proposal.)

[xlvi.] **xlviii.** In Section 1111.1, Signs, **the exception to Item # 1 shall be deleted. Additionally,** in the last line of the exception to Item #2, “an assigned” shall be inserted following “identification of” and “spaces” shall be deleted and “space” shall be inserted.

Recodify proposed xlvii. – xlviii. as **xlix. – l.** (No change in text from proposal.)

11. – 15. (No change from proposal.)

16. Chapter 17, Structural Tests and Special Inspections, shall be amended as follows:

i. – xxv. (No change from proposal.)

xxvi. In Section 1705.12.8, Seismic solution systems, in the first sentence of the first paragraph, ***“B” and*** “C,” shall be deleted in reference to seismic design categories.

xxvii. – xxx. (No change from proposal.)

17. – 20. (No change from proposal.)

21. Chapter 30, Elevators and Conveyor systems, shall be amended as follows:

i. – iii. (No change from proposal.)

[iv. New Section 3002.4.1, Elevators in newly constructed multiple dwellings, shall be inserted as follows: “When an elevator is installed in any newly constructed multiple dwelling regardless of height, the elevator shall meet the dimensional requirements above.”]

Recodify proposed v. – xiv. as ***iv. – xiii.*** (No change in text from proposal.)

22. Chapter 31, Special Construction, shall be amended as follows:

i. – iii. (No change from proposal.)

iv. Section 3109, Swimming Pool Enclosures and Safety Devices, shall be deleted in its entirety and the following shall be inserted:

SECTION 3109 SWIMMING POOLS, SPAS AND HOT TUBS

3109.1 General. The design and construction of pools, spas, hot tubs and enclosures shall comply with the International Swimming Pool and Spa Code listed in Chapter 35.

3109.2 Amendments to the International Swimming Pool and Spa Code. The following amendments shall be made to the International Swimming Pool and Spa Code:

1. Chapter 1, Scope and Administration, shall be deleted in its entirety. In addition, any referenced section of Chapter 1 shall be deleted throughout the code and "the administrative provisions of the Uniform Construction Code (N.J.A.C. 5:23)" shall be inserted.

2. Chapter 2, Definitions, shall be amended as follows:

2.1 In Section 201.2, Terms defined in other codes, "International Plumbing Code" shall be deleted and "plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted.

2.2 In Section 202, Definitions:

2.2.1 The definition of "alteration" shall be deleted.

2.2.2 The definition of "code official" shall be deleted and the following shall be inserted: "Construction Official. A qualified person appointed by the municipal appointing authority or the commissioner pursuant to the act and the regulations to enforce and administer the regulations within the jurisdiction of the enforcing agency."

2.2.3 The definition of "existing pool or spa" shall be deleted.

2.2.4 The definition of "owner" shall be deleted and the following shall be inserted: "Owner. The owner or owners in fee of the property of a lesser estate therein, a mortgagee or vendee in possession, an assignee of rents, receiver, executor, trustee, lessee or any other person, firm or corporation, directly or indirectly in control of a building, structure or real property and shall include any subdivision thereof of the State."

2.2.5 The definitions of "permit*[,]" and "repair" shall be deleted.

3. Chapter 3, General Compliance, shall be amended as follows:

3.1 In Section 302.1, Electrical, "or the International Residential Code, as applicable in accordance with Section 102.7.1" shall be deleted.

3.2 In Section 302.2, Water service drainage, “International Plumbing Code” shall be deleted and “plumbing subcode (N.J.A.C. 5:23-3.15)” shall be inserted.

3.3 In Sections 302.5, Backflow prevention, and 302.6, Waste-water discharge, “International Plumbing Code or the International Residential Code, as applicable in accordance with Section 102.7.1” shall be deleted and “plumbing subcode (N.J.A.C. 5:23-3.15)” shall be inserted.

3.4 Section 305, Barrier requirements, shall be amended as follows:

3.4.1 In Section 305.1, General, Exception 2 shall be deleted.

3.4.2 Section 305.4, Structure wall as a barrier, shall be deleted.

3.4.3 In Section 305.5, Onground residential pool structure as a barrier, in item 3, “capable of being secured, locked or removed to prevent access except where the ladder or steps are” shall be deleted.

3.5 In Section 306.1, General, “in accordance with Section 102.7.1” shall be deleted.

3.6 Sections 306.3, Stair treads and risers, and 306.4, Deck steps handrail required, shall be deleted.

3.7 In Section 306.9.1, Hose bibbs, “International Plumbing Code or the International Residential Code, as applicable in accordance with Section 102.7.1” shall be deleted and “plumbing subcode (N.J.A.C. 5:23-3.15)” shall be inserted.

3.8 In Sections 307.2, Glazing in hazardous locations, 307.4, Materials and structural design, 307.8, Roofs or canopies, and 316.4, Installation, “in accordance with Section 102.7.1” shall be deleted.

3.9 In Section 307.9, Accessibility, the last sentence shall be deleted.

3.10 In Section 318.2, Protection of potable water supply, “International Residential Code or the International Plumbing Code or, as applicable in accordance with Section 102.7.1” shall be deleted and “plumbing subcode (N.J.A.C. 5:23-3.15)” shall be inserted.

3.11 In Section 321.4, Residential pool and deck illumination, “or the International Residential Code, as applicable in accordance with Section 102.7.1” shall be deleted.

4. Chapter 4, Public swimming pools, shall be amended as follows:

4.1 In Section 410.1, Dressing and sanitary facilities, “International Plumbing Code” shall be deleted and “plumbing subcode (N.J.A.C. 5:23-3.15)” shall be inserted.

5. Amendments to Chapter 6, Aquatic recreation facilities, shall be amended as follows:

5.1 In Section 601.1, Scope, the following sentence shall be added to the end of the paragraph, “For purposes of enforcement, Class D-2 and Class D-6 public pools shall be regulated by this chapter and N.J.A.C. 5:23; all other Class D public pools shall be regulated by N.J.A.C. 5:14A.”

5.2 In Section 609.1, General, “Section 609.2 through 609.9” shall be deleted and “the plumbing subcode (N.J.A.C. 5:23-3.15)” shall be inserted.

5.3 Sections 609.2, Number of fixtures, 609.3, Showers, 609.4, Soap dispensers, 606.5, Toilet tissue holder, 609.6, Lavatory mirror, 606.7, Sanitary napkin receptacles, 609.8, Sanitary napkin dispensers*,* and 609.9, Infant Care, shall be deleted.

*[6. Chapter 11, Referenced Standards, shall be amended as follows:

6.1 In the ICC table, "IPC-12, International Plumbing Code" shall be deleted and "NSPC-12, National Standard Plumbing Code*" shall be inserted. In addition, at the bottom of the ICC table, "* NSPC-12 is non-ICC and is published by the National Association of Plumbing-Heating-Cooling Contractors" shall be inserted.]*

23. – 26. (No change from proposal.)

5:23-3.16 Electrical subcode

(a) (No change from proposal.)

(b) The following chapters or articles of the electrical subcode are amended as follows:

1. – 2. (No change.)

3. Chapter 2 of the electrical subcode, entitled “Wiring and Protection is amended as follows:

i. – ii. (No change from proposal.)

iii. In Section 210.12(A), entitled “Arc-Fault Circuit-Interrupter Protection. Dwelling Units,” “kitchens” and “laundry areas” shall be deleted.

[iii.] ***iv.*** (No change in text from proposal.)

4. – 6. (No change.)

7. Chapter 6 of the electrical subcode, entitled “Special Equipment,” is amended as follows:

i. – vi. (No change from proposal.)

vii. In Section 690.47, Grounding Electrode System, (D) Additional Auxiliary Electrodes for Array Grounding, shall be deleted in its entirety.

8. – 9. (No change.)

(c) (No change.)

5:23-3.21 One- and two-family dwelling subcode

(a) – (b) (No change from proposal.)

(c) The following chapters or sections of the IRC/2015 shall be modified as follows:

1. – 2. (No change from proposal.)

3. Chapter 3, Building Planning, shall be amended as follows:

i. – xlv. (No change from proposal.)

xlvi. In Section R326.1, General, “and enclosures” shall be inserted between “spas” and “shall.” In addition, the following shall be added to the end of the section:

“Amendments to the ISPC shall be as follows:

1. Chapter 1, Scope and Administration, shall be deleted in its entirety. In addition, any referenced section of Chapter 1 shall be deleted throughout the code and "the administrative provisions of the Uniform Construction Code (N.J.A.C. 5:23)" shall be inserted.

2. Chapter 2, Definitions, shall be amended as follows:

2.1 In Section 201.2, Terms defined in other codes, “International Plumbing Code” shall be deleted and “plumbing subcode (N.J.A.C. 5:23-3.15)” shall be inserted.

2.2 In Section 202, Definitions:

2.2.1 The definition of "alteration" shall be deleted.

2.2.2 The definition of "code official" shall be deleted and the following shall be inserted: "Construction Official. A qualified person appointed by the municipal appointing authority or the commissioner pursuant to the act and the regulations to enforce and administer the regulations within the jurisdiction of the enforcing agency.”

2.2.3 The definition of "existing pool or spa" shall be deleted.

2.2.4 The definition of "owner" shall be deleted and the following shall be inserted: "Owner. The owner or owners in fee of the property of a lesser estate therein, a

mortgagee or vendee in possession, an assignee of rents, receiver, executor, trustee, lessee or any other person, firm or corporation, directly or indirectly in control of a building, structure or real property and shall include any subdivision thereof of the State."

2.2.5 The definitions of "permit" and "repair" shall be deleted.

3. Chapter 3, General Compliance, shall be amended as follows:

3.1 In Section 302.1, Electrical, "or the International Residential Code, as applicable in accordance with Section 102.7.1" shall be deleted.

3.2 In Section 302.2, Water service drainage, "International Plumbing Code" shall be deleted and "plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted.

3.3 In Sections 302.5, Backflow prevention, and 302.6, Waste-water discharge, "International Plumbing Code or the International Residential Code, as applicable in accordance with Section 102.7.1" shall be deleted and "plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted.

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3.4.1 In Section 305.1, General, Exception 2 shall be deleted.

3.4.2 Section 305.4, Structure wall as a barrier, shall be deleted.

3.4.3 In Section 305.5, Onground residential pool structure as a barrier, in item 3, "capable of being secured, locked or removed to prevent access except where the ladder or steps are" shall be deleted.

3.5 In Section 306.1, General, "in accordance with Section 102.7.1" shall be deleted.

3.6 Sections 306.3, Stair treads and risers, and 306.4, Deck steps handrail required, shall be deleted.

3.7 In Section 306.9.1, Hose bibbs, “International Plumbing Code or the International Residential Code, as applicable in accordance with Section 102.7.1” shall be deleted and “plumbing subcode (N.J.A.C. 5:23-3.15)” shall be inserted.

3.8 In Sections 307.2, Glazing in hazardous locations, 307.4, Materials and structural design, 307.8, Roofs or canopies, and 316.4, Installation, “in accordance with Section 102.7.1” shall be deleted.

3.9 In Section 307.9, Accessibility, the last sentence shall be deleted.

3.10 In Section 318.2, Protection of potable water supply, “International Residential Code or the International Plumbing Code or, as applicable in accordance with Section 102.7.1” shall be deleted and “plumbing subcode (N.J.A.C. 5:23-3.15)” shall be inserted.

3.11 In Section 321.4, Residential pool and deck illumination, “or the International Residential Code, as applicable in accordance with Section 102.7.1” shall be deleted.

4. Chapter 4, Public swimming pools, shall be amended as follows:

4.1 In Section 410.1, Dressing and sanitary facilities, “International Plumbing Code” shall be deleted and “plumbing subcode (N.J.A.C. 5:23-3.15)” shall be inserted.

5. Amendments to Chapter 6, Aquatic recreation facilities, shall be amended as follows:

5.1 In Section 601.1, Scope, the following sentence shall be added to the end of the paragraph, “For purposes of enforcement, Class D-2 and Class D-6 public pools shall be regulated by this chapter and N.J.A.C. 5:23; all other Class D public pools shall be regulated by N.J.A.C. 5:14A.”

5.2 In Section 609.1, General, “Section 609.2 through 609.9” shall be deleted and “the plumbing subcode (N.J.A.C. 5:23-3.15)” shall be inserted.

5.3 Sections 609.2, Number of fixtures, 609.3, Showers, 609.4, Soap dispensers, 606.5, Toilet tissue holder, 609.6, Lavatory mirror, 606.7, Sanitary napkin receptacles, 609.8, Sanitary napkin dispensers, and 609.9, Infant Care, shall be deleted.

*[6. Chapter 11, Referenced Standards, shall be amended as follows:

6.1 In the ICC table, "IPC-15, International Plumbing Code" shall be deleted and "NSPC-12, National Standard Plumbing Code*" shall be inserted. In addition, at the bottom of the ICC table, "* NSPC-12 is non-ICC and is published by the National Association of Plumbing-Heating-Cooling Contractors" shall be inserted.]*

4. – 7. (No change from proposal.)

8. Chapter 9, Roof Assemblies, shall be amended as follows:

i. (No change from proposal.)

ii. In Section*s **R905.1.2 and*** R905.16.4.1, Ice barrier, in the first sentence, delete "In areas where there has been a history of ice forming along the eaves causing a back-up of water as designated in table R301.2(1)", and "In areas where the average daily temperature in January is 25°F (-4°C) or less," shall be inserted.

9. – 24. (No change from proposal.)