COMMUNITY AFFAIRS

Division of Codes and Standards
Uniform Construction Code
Building, Plumbing, Fire Protection, Energy, Mechanical, and Fuel Gas
Subcodes
Proposed Amendments: N.J.A.C. 5:23-3.14, 3.15, 3.17, 3.18, 3.20, 3.21,
and 3.22

Authorized by: Charles A. Richman, Acting Commissioner,

Department of Community Affairs

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

Calendar Reference: See Summary below for explanation of exception to calendar

requirement.

Proposal Number: PRN 2009-

Submit written comments by: November 7, 2009 to:

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CHARLES A. RICHMAN ACTING COMISSIONER

The agency proposal follows:

Summary

Under the State Uniform Construction Code (UCC) Act, the Commissioner of the Department of Community Affairs is charged with adopting model codes as part of the Uniform Construction Code (UCC). P.L. 1996, c.53 amended the UCC Act to give the Commissioner "the authority to limit the adoption of later versions of the model codes to include only those standards in effect on July 1, 1995 and any later versions or amendments of model codes which would not be inconsistent with the purpose of the Act." In February 2007, the Department adopted revisions to the 2006 editions of the International Building Code (IBC), International Residential Code (IRC), the National Standard Plumbing Code (NSPC), International Mechanical Code (IMC), International

Fuel Gas Code (IFGC) and International Energy Conservation Code (IECC) as the building, one- and two-family dwelling, plumbing, mechanical, fuel gas and energy subcodes, respectively, of the UCC.

In order to implement the most recent published standards, the Department proposes to adopt the 2009 editions of the IBC, IRC, NSPC, IMC, IFGC and IECC to update the above referenced subcodes of the UCC. These proposed amendments reflect the modifications to the IBC/2009, IRC/2009, NSPC/2009, IMC/2009, IFGC/2009 and IECC/2009 which the Department is proposing to adopt and which have been reviewed by the Uniform Construction Code Advisory Board and its subcode committees.

Throughout this code proposal, changes would be made to ensure that the text of the adopted model code reflects the structure and administrative provisions of the UCC. For example, references to "building code" or "International Building Code" would be changed to "building subcode;" references to Chapter 11, Accessibility, would be changed to the "barrier free subcode;" references to "International Plumbing Code" would be changed to "plumbing subcode;" etc. There are two references to electrical requirements throughout these model codes. In the IMC/2009 and IFGC/2009, there are references to the National Fire Protection Association (NFPA) 70, which is adopted as the electrical subcode in New Jersey. Therefore, these references would not be deleted. The IBC/2009 and the IRC/2009 have electrical requirements in a specific chapter; this chapter includes specific electrical requirements rather than a reference to NFPA 70, so references to "Chapter 27," would be deleted. In addition, references to code officials, including "building code official", "fire code official," "plumbing code official," etc., would be changed to "building subcode official," "fire protection subcode official," "plumbing subcode official," etc., as applicable.

Also, throughout this code proposal, where section numbers in the model code have been changed, with no change in code text or requirements, or where the title of a section in the model code has been changed, with no change in code text or requirements, those updates would be made.

The IBC/2009 contains two new provisions and the IRC/2009 contains one new provision that require an additional explanation and discussion. These are live/work units (IBC/2009), ambulatory care facilities (IBC/2009), and fire sprinklers in one- and two-family dwellings (IRC/2009). The adoption of the energy code also requires additional explanation.

Live/Work Units: Live/work units are dwelling units with space that is integral to the dwelling unit. IBC/2009, section 419 establishes the maximum size, the percentage of the unit that may be used for non-residential purposes, and the maximum number of employees. It is becoming increasingly common for people to use a portion of their dwelling unit for work. Perhaps the most common live/work unit is the use of a dwelling unit by an artist as a studio. The addition of this section to the model code, and in the UCC, would ensure safety, which is particularly important when the work expands to the point where it requires employees. Live/work units are different from offices that are accessory to a dwelling unit and, therefore, establishing code requirements that are unique to this setting is sensible. In the live/work unit, the living space and work space are more than 10% of the dwelling unit; in an accessory office, the living space and the work space are 10% or less of the dwelling unit.

Ambulatory Health Care Facilities: IBC/2009, section 304.1, Group B, business, would include "ambulatory health care facility" as an occupancy group and

would also define "clinic, outpatient." The IBC/2009 provides that where the health care facility provides for the care of four or fewer patients and the operating and recovery room is on the level of exit discharge, there is no sprinkler requirement. In all other cases, the occupancy is sprinklered. These requirements would apply to medical offices that provide same-day or out-patient surgery, oral surgery, or other medical procedures where anaesthetic compromises the patient's ability to exit on their own. These requirements, which are in IBC/2009, section 422, ambulatory health care facilities, and section 903.2.2, sprinklers, are designed to ensure the safety of patients who, due to a medical procedure, are not able to exit the facility without assistance.

Sprinklers in One- or Two-Family Dwellings: At N.J.A.C. 5:23-3.21(c)3xxi, IRC/2009, section R313.1, townhouses, and, at N.J.A.C. 5:23-3.21(c)3xxiii, IRC/2009, section R313.2, one- and two-family dwellings, the installation of sprinklers in townhouses and in detached one-and two-family dwellings would be required. While the IRC/2009 contains an effective date of January 1, 2011 for requiring the installation of sprinklers in one- and two-family dwellings, the Department is proposing an effective date of January 1, 2012. This is discussed in more detail below and in comment 98. Recognizing the enhancement to life safety, advances in sprinkler technology, and the new technical standard for a one- or two-family dwelling sprinkler system that is part of the plumbing system, the Department believes that it is time to require the installation of sprinklers in detached one- and two-family dwellings and townhouses.

Recent fire safety data make a compelling case for requiring the installation of sprinklers. Data from the United States Fire Administration show that each fire protection method used in a home increases the likelihood of surviving a fire. In homes with smoke alarms alone, there is a 63% reduction of fire-related deaths; in homes with a sprinkler system alone, there is a reduction of 69% of death in a fire; in a home with both smoke alarms and a sprinkler system, there is a reduction of 82% of death in a fire. In 2006, 19% of reported fires were in one- and two-family dwellings; however, those fires resulted in 66% of the fire deaths in the United States that year.

Life safety is one important aspect of code adoptions; the cost relative to the benefit of any new requirement is another. There is a discussion that requiring sprinklers in one- and two-family dwellings would greatly increase the cost of constructing a home in New Jersey. The Department does not believe this is the case. The highest estimates of the cost of sprinkler installation offered during these discussions are based on sprinkler costs for larger sprinkler systems in larger buildings. The cost of installing a multipurpose fire sprinkler system, including the P2904 system of the International Residential Code (IRC)/2009 and NFPA 13D, both of which are part of the plumbing system already being installed, is minimal. Estimates regarding the cost are included in the Housing Affordability Impact Statement below.

The Department recognizes that adjusting to a new code requirement, particularly one that includes a new technical design option, takes time. Therefore, the Department is proposing to establish an effective date of January 1, 2012 for requiring sprinklers in townhouses and in detached one- and two-family dwellings. This effective date, which is one year longer than that included in the IRC/2009, will enable design professionals, contractors, builders, and code enforcement officials to obtain training and develop familiarity with the requirements and their application. An additional benefit to establishing an effective date that is three years in the future is that it would provide ample time for the construction industry to regain momentum.

Energy: The IECC/2009 contains enhanced requirements for insulation, the installation of efficient mechanical equipment and, in some cases, higher efficiency windows. There will be an associated increase in construction costs. At the same time, the increased efficiency should result in reduced costs associated with the reduction in energy consumption. (See the discussion in the economic impact statement below.)

In addition, the IECC/2009 requires that the thermal envelope's air barrier be tested or subjected to a visual inspection and that the home's duct system be tested for leakage. Concern has been expressed that this requirement could be burdensome. The primary concern is cost and benefit; a secondary concern is whether there is an adequate number of qualified professionals to perform the tests.

Cost: Estimates obtained by the Department representatives at the code change hearings held by the International Code Council (ICC) in September, 2008, placed the cost of materials and labor for the duct sealing test at approximately \$400; the one-time cost of equipment necessary to conduct the duct testing at \$1,500-\$2,000; and labor for conducting the blower door test ranged from \$200 - \$400. The Energy Conservatory in Minneapolis shows the cost of equipment for a blower door system ranging from \$1,950 - \$2,625; the cost of infrared cameras with "Quick Report" range from \$4,995 to \$7,995. Infiltec in Waynesboro, Virginia, advertises blower doors ranging from \$1,995 to \$3,690. The purchase of the equipment would be a one-time investment.

Qualified professionals: There are testers certified to perform the blower door tests. The Building Professionals Institute (BPI) and Residential Energy Services Network (RESNET) offer certification for Providers, Raters, and Analysts. The Board of Public Utilities (BPU) is an affiliate of BPI and offers BPI training/certification on an ongoing basis. In addition, the New Jersey Center for Energy and Environmental Training (NJCEET), an initiative of the Department of Labor, is currently training individuals for BPI certification. Training is currently offered at two sites – in Trenton and Newark--and two more sites are planned – in Camden and New Brunswick.

Certification to perform the duct sealing test is not yet available, but is anticipated. On December 20, 2007, the Governor signed into law the Heating, Ventilation, Air-conditioning, and Refrigeration Contractors Licensing Act (PL 2007, c.211). Once the licensing board has been appointed, rules and regulations will be proposed and adopted, and training for certification will be held.

There is discussion over whether a visual inspection is adequate to ensure code compliance with the proposed energy enhancements. As described above, testing requires the services of a qualified professional. There is also the question of how to address dwelling units that do not pass these tests even after remedial action has been taken. Because there is debate over the implementation of these testing requirements, the Department is seeking comments on this issue. In particular, the Department is interested in input from the public as to whether the testing requirements of the IECC/2009 should be effective upon adoption or at some established date in the future.

The references in this summary are to newly numbered sections. Where a comment refers to existing text only, it is so noted. A section-by-section summary of the proposed amendments follows:

- 1. At N.J.A.C. 5:23-2.20, Tests and special inspections, an amendment would be made to include smoke control systems in the required tests and inspections for any building. (See explanation at comment 47 below.)
- 2. At N.J.A.C. 5:23-3.6(b) an exception would be added to the administrative provisions

of the Uniform Construction Code (UCC) specifying that where enforcement of a code provision would violate the conditions of the listing of equipment or an appliance, the more restrictive provision shall apply. This provision is in Chapter 1 of the International Mechanical Code (IMC)/2009. Because the administrative chapters are deleted from each of the adopted model codes, this provision, which clarifies and provides direction for a common construction issue, would be included in the UCC.

Building Subcode (N.J.A.C. 5:23-3.14): International Building Code (IBC)/2009

- 3. At N.J.A.C. 5:23-3.14(a)1 and N.J.A.C. 5:23-3.14(a)1ii, because the IBC/2009 is being proposed to be the building subcode of the UCC, the references to the International Building Code (IBC)/2006 would be changed to the IBC/2009.
- 4. At N.J.A.C. 5:23-3.14(a)2, the language regarding the International Electrical Code would be deleted from the IBC/2009 because it is no longer published. Clarification of cross-references to model codes that are published by the ICC, but are not adopted as part of the UCC would also made. These include: references to the "International Plumbing Code" shall mean the "plumbing subcode;" references to the "International Existing Buildings Code" shall mean the "rehabilitation subcode;" references to the "ICC/American National Standards Institute A117.1," including references to Chapter 11 of the IBC, shall mean the "barrier free subcode."
- 5. N.J.A.C. 5:23-3.14(b)1i would be deleted because this section, which deletes references to Chapter 1 in IBC/2009 in several sections of the IBC/2009, is misplaced. Instead of deleting references to Chapter 1 in specific sections (section 308, Group I; section 310, Group R; and section 1704, Special inspections), those references would be addressed individually. Specifically, references to Chapter 1, in section 308, Group I would be moved to N.J.A.C 5:23-3.14(b)1vi and vii, which amend section 308. The text of section 310, definitions of residential occupancies, is not being proposed. In IBC/2009, section 1704 has been completely rewritten and no longer contains references to Chapter 1.
- 6. At N.J.A.C. 5:23-3.14(b)2xiii, the definition of "Registered Design Professional in Responsible Charge" would be deleted because this term is not used in the UCC.
- 7. The existing text at N.J.A.C. 5:23-4.14(b)3i regarding the quantity of radioactive materials from Table 307.1(2) and its corresponding definition would be moved to N.J.A.C. 5:23-3.14(b)3iii, (b)3iv, and (b)3v for improved sequencing. In addition, at N.J.A.C. 5:23-3.14(b)3v, "Radioactive Material" would be added to the list of Group H-4 materials. The building subcode contains an exemption for radioactive material below a specified quantity, but does not include a classification for structures that contain radioactive materials above that quantity. This amendment would retain the classification of Group H-4 from the Building Officials and Code Administrators (BOCA) National Building Code/1996.
- 8. At N.J.A.C. 5:23-3.14(b)3xi, text would be added to Group R-3 and R-5 occupancies providing that Group Homes with 5 or fewer occupants who are capable of prompt self-evacuation are Group R-3 or R-5. This amendment would provide complete classification information. The building subcode currently contains classifications for group homes with six or more residents, but the classification for group home with five or fewer had not been clearly spelled out. This amendment would correct that omission.
- 9. At N.J.A.C. 5:23-3.14(b)3xi, the general charging text for residential occupancies would be added to the building subcode. The building subcode had included the kinds of buildings and occupancies that would be designated as residential without any general

- scoping, or charging, text. This adds the scoping text to ensure clarity and intent.
- 10. At N.J.A.C. 5:23-3.14(b)5x, IBC Section 414.1.3, Information required, would be amended to require that information regarding hazardous materials be submitted to the fire protection subcode official because the UCC assigns enforcement responsibility for hazardous materials to the fire protection subcode official.
- 11. At N.J.A.C. 5:23-3.14(b)5xv, Section 423, Storm Shelters, would be deleted because the standard that is referenced places heightened requirements, including siting, occupant density, and plumbing fixtures, on these facilities. The Department believes that the existing code requirements are more than adequate to protect public health and safety and does not believe that the additional requirements, which add significantly to the cost of constructing a shelter, add a commensurate measure of safety.
- 12. At N.J.A.C. 5:23-3.14(b)6i, Section 501.2, Address identification, would be deleted. In new construction, addresses are often not known until construction is completed or is near completion.
- 13. N.J.A.C. 5:23-3.14(b)6ii(6) would modify the current regulation for Group B in the height and area (Table 503). IBC/2009, Table 503 has been revised to provide the same standards that have been required by the UCC. Therefore, amending Table 503 for Group B is no longer necessary.
- 14. At N.J.A.C. 5:23-3.14(b)6ii(13), a superscript "e" would be added to Group I-4; this, in turn, would add Note e to Table 503 to ensure that child care facilities of Types IIB, III, IV or V construction are limited to 20 feet and 1 story. This change reverts to the height limitations for childcare facilities in the Building Officials and Code Administrators (BOCA) National Building Code/1996 and is made to ensure that childcare facilities are required to have an exit directly to the outside. This protection is required for kindergarten classrooms. The BOCA National Building Code/1996 protected kindergarten students and children in daycare facilities equally. That protection should continue and the same protection, the ability to egress directly to the exterior, should be required for childcare facilities. In addition, at N.J.A.C. 5:23-3.14(b)6iii, this change requires modification to the exception in section 504.2, Automatic sprinkler system increase, to ensure that childcare facilities that serve children 2-1/2 and under, are limited to one story and 20 feet regardless of whether there is a sprinkler system provided.
- 15. N.J.A.C. 5:23-3.14(b)6ii(14) is amended to reflect the change in IBC/2009 to Group M in the height and area (Table 503), which now provides the same standards that are currently required by the UCC. Therefore, amending the IBC/2009 is not necessary.
- 16. N.J.A.C. 5:23-3.14(b)6ii(19) is amended to reflect the change in IBC/2009 to Group S-1 in the height and area (Table 503), which now provides the same standards that are currently required by the UCC. Therefore, amending the IBC/2009 is not necessary.
- 17. N.J.A.C. 5:23-3.14(b)6ii(20) is amended to reflect the change in IBC/2009 to Group S-2 in the height and area (Table 503), which now provides the same standards that are currently required by the UCC. Therefore, amending the IBC/2009 is not necessary.
- 18. N.J.A.C. 5:23-3.14(b)8ii, would amend section 705.5, fire-resistance rating, from 10 feet to 5 feet. The IBC/2009 adds a requirement that the rating of exterior walls with a separation distance between buildings of 10 feet or less be protected from fire exposure from both sides. The IBC/2006 required this protection of exterior walls with a separation distance of 5 feet or less. In reviewing this code change, the code change proposal documents were consulted and there was a lack of technical justification for the code change. Therefore, the provisions of the current building subcode from the

IBC/2006 would be retained.

- 19. The existing text at N.J.A.C. 5:23-3.14(b)9viii, windowless stories, would be deleted. The IBC/2009 now contains the same requirements, that windowless stories be sprinklered, that had been contained in the UCC, with one exception. The IBC/2009 exempts spaces of 1,500 square feet or less from the sprinkler requirement. Eliminating this exemption would ensure that windowless stories of 1,500 square feet are required to be sprinklered. Windowless stories present a specific hazard to firefighters in that they provide no window access for fighting a fire from the exterior. The hazard exists regardless of the size of the space; therefore, the requirement that a windowless story of any size be provided with a sprinkler system would be retained.
- 20. Existing text at N.J.A.C. 5:23-3.14(b)9xxi, Section 905.6.2, Interconnection, would be deleted because it is currently referenced at N.J.A.C. 5:23-(b)9vi, which is proposed for retention with no change in text.
- 21. At N.J.A.C. 5:23-3.14(b)9xxii, in Section 906.1, Portable fire extinguishers: Where required, "or existing" would be deleted in Item #1 and in the exception. In existing buildings, portable fire extinguishers are under the jurisdiction of the Uniform Fire Code (UFC) not the UCC.
- 22. At N.J.A.C. 5:23-3.14(b)9xxiv, in section 907.1.1, construction documents, the provision that "relevant laws, ordinances, rules, and regulations, as determined by the fire code official" would be deleted because the laws and regulations that are enforced by licensed code officials are contained in the UCC and are not determined by the fire official.
- 23. Existing text at N.J.A.C. 5:23-3.14(b)9xxi, regarding Section 907.2.10, multiple station smoke alarms, would be deleted because this section as removed from the IRC/2009, so coordination between IBC/2009 and IRC/2009 in the building subcode.
- 24. At N.J.A.C. 5:23-3.14(b)9liii, Section 913.4.1, Test outlet valve suspension, would be deleted. This section would require that every test valve outlet be chained in a closed position. The Department regards this additional code requirement as overly restrictive.
- 25. At N.J.A.C. 5:23-3.14(b)9xxviii, in Group E, alarm verification would be added to exception 2.1 to reduce the likelihood of false alarms.
- 26. At N.J.A.C. 5:23-3.14(b)10viii and ix, in IBC/2009, Section 1007.3 and 1007.4, sprinklered buildings are exempted from the requirement that areas of refuge be provided at stairways and elevators. These exemptions were not included in the IBC/2006. The Department proposes to retain the text of the IBC/2006, which would require areas of refuge at stairways and elevators regardless of the existence of a sprinkler system. This would ensure that there is a protected area of refuge to serve people with disabilities, whether the emergency that requires evacuation is a fire condition or is caused by another event, one which might not activate the sprinkler system.
- 27. At N.J.A.C. 5:23-3.14(b)10xvii, section 1008,1.9.8, electromagnetic locked egress doors, would be deleted. When a fire alarm is activated, this new section would not require electromagnetically locked egress doors to automatically unlock and would not require the main entrance door to be open from the egress side during periods that the building is open to the general public in Group A, B, E or M occupancies. The Department believes that the current code requirements at the access-controlled egress door section, which require that locked egress doors unlock when a fire alarm activates, is safer.
- 28. At N.J.A.C. 5:23-3.14(b)10xxi, section 1009.11, ship ladders, would be amended to

- ensure that the scoping for ship ladders and alternate tread stairways is the same. These serve the same purpose and are similarly designed; this amendment would ensure that it is clear that the same code provisions apply.
- 29. The existing text at N.J.A.C. 5:23-3.14(b)10xvii and (b)10xxi regarding handrails is proposed for deletion because in the IBC/2009, section 1009.12, Handrails, exceptions, and section 1012.3, handrail graspability, have been modified to provide the same standards that have been required by the UCC. Therefore, amending the IBC/2009 is no longer necessary.
- 30. At N.J.A.C. 5:23-3.14(b)10xxiv, in IBC/2009, Section 1012.4, Continuity, new exception #4 would be deleted. This exception states that handrails are not required on walking surfaces that have a slope that is <u>not</u> steeper than 1:20. This exception is not needed because handrails are required on a ramp, which is defined as a walking surface with a slope that <u>is</u> steeper than 1:20; there is no requirement for a handrail on a walking surface that is <u>not</u> steeper than 1:20. To provide an exception for something that is not required could prove confusing.
- 31. At N.J.A.C. 5:23-3.14(b)10xxv, IBC/2009, Section 1012.2, Height (handrails), and exception #3 of Section 1013.2, Height (guards), would be amended from a minimum of 34 inches to a minimum of 30 inches. These amendments retain the current requirements of the IBC/2006 for handrail heights in buildings of Group R-3 and within dwelling units of Group R-2.
- 32. The existing text at N.J.A.C. 5:23-3.14(b)10xxiii regarding opening limitations in the infill in guardrails is being proposed for deletion. It is no longer needed because in the IBC/2009, Section 1013.3, Guardrail--Opening limitations, has been revised to provide nearly the same standards that have been required by the UCC. In the IBC/2006, openings in the guardrail infill were allowed to be 8 inches in guardrails that were from 36 inches to 42 inches in height. The IBC/2009 reduces the openings to 4-3/8 inch. The UCC had contained a requirement that the opening not exceed 4 inches. The Department believes that the 3/8-inch difference is not substantial and proposes to adopt IBC/2009, section 1013.3, Guardrail--Opening limitations of the IBC/2009 without amendment.
- 33. The existing text at N.J.A.C. 5:23-3.14(b)10xxiv, is being proposed to be deleted because in the IBC/2009, Section 1014.2, Egress through intervening spaces, has been revised to provide the same standards that have been required by the UCC.
- 34. At N.J.A.C. 5:23-3.14(b)10xxv, IBC/2009, Section 1014.2.5, Exit access through suites, is being proposed for deletion because this new section deals with suites in Group I-2 occupancies. In Group I-2, hospitals are required to comply with National Fire Protection Association (NFPA) 101, Life Safety Code, and the American Institute of Architects (AIA) Guidelines for Healthcare Facilities. All of the provisions of this new section, with the exception of Section 1014.2.5, are rooted in these two documents. Therefore, section 1014.2.5, Exit access through suites, is being proposed for deletion to avoid potential conflicts with the construction of new, and the additions to existing, healthcare facilities.
- 35. At N.J.A.C. 5:23-3.14(b)10xxvii, in IBC/2009, Section 1015.1, Exits or exit access doorways from spaces, exception #1, would be modified to retain the requirements of the IBC/2006 -- that Group R-3 (single-family) occupancies are always required to have one means of egress, regardless of size. In addition, in the requirements in the same section for Group R-2 occupancies, the occupant load trigger for a second means of egress has been changed from 20 occupants to 10 occupants. The occupant load of any building is

- directly tied to the square footage. An occupant load of 10 is established for a dwelling unit of 2,000 square feet; an occupant load of 20 is established for a dwelling unit of 4,000 square feet. The Department believes that a dwelling unit that is over 2,000 square feet should continue to be required to provide two means of egress.
- 36. At N.J.A.C. 5:23-3.14(b)10xxviii, in IBC/2009, Section 1016.1, Travel distance limitations, exceptions 3 and 4, would be deleted because those exceptions contain cross-references to code requirements that have been deleted.
- 37. At N.J.A.C. 5:23-3.14(b)10xxxi, IBC/2009, Section 1021.1, Exits from stories, has been revised. In Exception 3, a direct cross-reference to a section of the code that is being proposed for deletion would be deleted. In addition, Exception 5 would be added for Group R-3 occupancies to retain the current code provision that these occupancies may continue to be constructed with a single means of egress regardless of size.
- 38. The existing text at N.J.A.C. 5:23-3.14(b)10xxviii, regarding vertical exit enclosures, would be deleted and the requirements of IBC/2009, section 1022.1, would be adopted. The IBC/2009 now includes the same provisions that have been part of the UCC, so this section of the IBC/2009 no longer requires amendment.
- 39. Existing text at N.J.A.C. 5:23-3.14(b)10xxix, regarding horizontal exits, would be deleted because the IBC/2009 now includes the same provisions that have been part of the UCC, so this section of the IBC/2009 no longer requires amendment.
- 40. At N.J.A.C. 5:23-3.14(b)10xxxiv, IBC/2009, Section 1028.1.1, Bleachers, would be amended to require the use of Chapters 2, 3, and 4 of ICC 300, the technical standard for newly constructed bleachers. The ICC 300 contains technical requirements for bleachers that are not otherwise contained in the building subcode; its adoption would ensure the safe construction and use of bleachers. In a companion change, existing text at N.J.A.C. 5:23-3.14(b)10xxxii, which deletes IBC/2006, section 1025.1.1, bleachers, would be deleted.
- 41. Existing text at N.J.A.C. 5:23-3.14(b)14i is being proposed for deletion. It is no longer required because IBC/2009, Section 1403, weather protection, no longer contains a reference to the International Energy Conservation Code.
- 42. At N.J.A.C. 5:23-3.14(b)15iv through viii, IBC/2009, Sections 1507.5.4, 1507.6.4, 1507.7.4, 1507.8.4 and 1507.9.4, regarding ice barriers, would be modified to provide clearer requirements. Specifically, in these sections, "areas where there has been a history of ice forming along the eaves" would be replaced with "areas where the average daily temperature in January is 25 degrees F."
- 43. Existing text at N.J.A.C. 5:23-3.14(b)16i and ii is being proposed for deletion because these sections have been deleted from the IBC/2009. Existing text at N.J.A.C. 5:23-3.14(b)16iii is being proposed for deletion because section 1604.11, general structural integrity, which was referenced in this section, has been moved in the IBC/2009 to section 1614, structural integrity, and is proposed for adoption unamended.
- 44. At N.J.A.C. 5:23-3.14(b)16i, IBC/2009, a new Section 1603.2, Restrictions on loading, would be added. The text of the new section is actually the text from Section 1603.2, Restrictions on loading, of the IBC/2006, which was moved to Chapter 1 in the IBC/2009. Because Chapter 1 is being proposed for deletion, this provision is inserted where it belongs for its content.
- 45. The existing text at N.J.A.C. 5:23-3.14(b)16vi would be deleted because its requirements are contained in the section below, as amended. This section would add Group E to the loading requirements for fixed seats in Group A. Schools have spaces

- with fixed seats that are subject to the same live loads as those in buildings of Group A. Therefore, Group E would be added.
- 46. At N.J.A.C. 5:23-3.14(b)16vi and vii, references to design rain loads and would be modified to add a cross-reference to the National Standard Plumbing Code (NSPC), the adopted plumbing subcode; this will ensure consistency between the building and plumbing subcodes. The corresponding map would be deleted to avoid confusion.
- 47. At N.J.A.C. 5:23-3.14(b)17i and vi, special inspections would be required for smoke control systems regardless of building classification (N.J.A.C. 5:23-4.3A). Smoke control systems are complex and require an attention to detail best provided by special inspectors who have the requisite training and expertise. Special inspections are currently required for smoke control systems in Class I structures; this amendment would extend that requirement to smoke control systems in all buildings.
- 48. N.J.A.C. 5:23-3.14(b)17xiii is being proposed for deletion because IBC/2006, Section 1704.9 and Table 1704.9, Required Verification and Inspection of Pier Foundations, have been deleted from the IBC/2009.
- 49. At N.J.A.C. 5:23-3.14(b)17xii, the reference to section 1705.1, Special inspections-general, would be deleted and the inspection requirement in section 1705.3, seismic resistance, would be retained.
- 50. At N.J.A.C. 5:23-3.14(b)17xvi, the amendment to "Contractor responsibility," would be moved to N.J.A.C. 5-23-3.14(b)17xix with no change in text..
- 51. At N.J.A.C. 5:23-3.14(b)17xiv, IBC/2009, Section 1706, Special inspection for wind requirements, would be deleted. This is a requirement for a special inspection and the Department believes that licensed UCC code enforcement officials are capable of inspecting these light frame structures. A companion change would be made at N.J.A.C. 5:23-3.14(b)17xix, regarding section 1709.1, contractor responsibility.
- 52. Existing text at N.J.A.C. 5:23-3.14(b)17xviii, which amends the seismic categories for pier foundation, would be deleted. It is no longer required because IBC/2006, Section 1707.5, Pier Foundations, has been removed from the IBC/2009.
- 53. At N.J.A.C. 5:23-3.14(b)17xvii, existing text regarding section 1708, masonry and structural steel, would be deleted. This section has been deleted from the IBC/2009.
- 54. At N.J.A.C. 5:23-3.14(b)18i, IBC/2009, Section 1803.3.1, Scope of investigation, would be moved from existing N.J.A.C. 5:23-3.14(b)18iii. There is no change in text.
- 55. Existing text at N.J.A.C. 5:23-3.14(b)18iii, Exploratory boring, would be moved to N.J.A.C. 5:23--3.14(b)18i with no change in text.
- 56. N.J.A.C. 5:23-3.14(b)18iii would be proposed for deletion because the new language in IBC/2009, Section 1803.6, Reporting, reflects the current UCC requirement; it requires that reports be submitted when geotechnical investigations are required.
- 57. The existing text at N.J.A.C. 5:23-3.14(b)18v would be moved to new section N.J.A.C. 5:23-3.14(b)18vi for footing depth exceptions for garden type and utility sheds. There is no change in text.
- 58. The existing text at N.J.A.C. 5:23-3.14(b)18viii is being proposed for deletion because IBC/2006, Section 1808.2.1, Design, has been removed from the IBC/2009.
- 59. N.J.A.C. 5:23-3.14(b)18xii and xiii are being proposed for deletion; the amendments are no longer required because of changes in the code. Specifically,
 - In IBC/2009, section 1810.3.9.4, seismic reinforcement, and section 1810.3.9.4.2, seismic reinforcement in seismic design categories D through F, replace section IBC/2006, 1808.2.23.2, seismic design category D

- In IBC/2009, section1808.8, concrete foundations, and Table 1808.8.1, minimum specified compressive strength of concrete or grout, replace IBC/2006, section 1809.2.2.1, precast nonprestressed piles-materials.
- In IBC/2009, section 1810.3.13, seismic ties, replaces IBC/2006 section 1812.4, pier foundations-reinforcement.
- 60. At N.J.A.C. 5:23-3.14(b)19i, language in the section 2303.4.2, truss placement diagram, the provision that the diagrams "serve only as a guide for installation and do not deviate from permit submittal drawings" would be deleted. In New Jersey, the Building Design Services Act (at N.J.A.C. 13:27 and 13:41) require construction documents to be signed and sealed by a New Jersey licensed design professional.
- 61. At N.J.A.C. 5:23-3.14(b)21, the references to elevator-related standards, would be updated to the most recent technical standards. Those sections of the technical standards that are proposed for deletion concern working areas inside the hoistway and in elevator pits; these are Occupational Safety and Health Association (OSHA), and are not elevator subcode or code enforcement, issues.
- 62. N.J.A.C. 5:23-3.14(b)22vi is being proposed for deletion because the entrapment avoidance requirements from IBC/2006, Section 3109.5 are now addressed in the referenced standard, APSP-7, Standard for Suction Entrapment Avoidance in swimming Pools, Wading Pools, Spas, Hot Tubs, and Catch Basins, which is being proposed for adoption by reference. The technical provisions of APSP-7 are consistent with the Virginia Graeme Baker Act, a Federal law that became effective in December 2008. The Virginia Graeme Baker Act requires all newly constructed swimming pools to have, and all existing public swimming pools to be retrofitted to include, entrapment avoidance features. APSP-7 is the technical standard, which provides the details on how to meet that requirement.
- 63. N.J.A.C. 5:23-3.14(b)25 would be modified to include a cross-reference to N.J.A.C. 5:23-6 for existing structures and to retain a portion of Section 3412, Compliance Alternatives, which would allow an analysis of the existing building to be performed as an alternative to complying with the rehabilitation subcode. This analysis is permitted by the rehabilitation subcode at N.J.A.C. 5:23-6.2(c)4.
- 64. N.J.A.C. 5:23-3.14(b)26, Referenced standards, and (b)27, Appendices, would be amended to update the names and editions of the standards and appendices adopted by reference.

Plumbing Subcode (N.J.A.C. 5:23-3.15)—National Standard Plumbing Code (NSPC)/ 2009

- 65. At N.J.A.C. 5:23-3.15 (a) 1-2, the adopted edition of the National Standard Plumbing Code (NSPC) would be changed from 2006 to 2009. Similar changes would be made, as needed, to update references and to update section numbers throughout the subchapter. In addition, the name of the association that publishes the NSPC would be changed from "National Association of Plumbing-Heating-Cooling Contractors" to "Plumbing-Heating-Cooling Contractors National Association."
- 66. At N.J.A.C. 5:23-3.15(b)2ix, the definition of "Dead End, Potable Water" would be deleted to allow dead end branches of the plumbing system to exceed two feet. The limitation was first included in the NSPC/2006. It has caused difficulties in plumbing design without any commensurate benefit. Therefore, the definition and its application (see comment 68 below) would be deleted and would revert to the provisions of NSPC/2003. In addition to impacting plumbing design in general, this amendment would

- also resolve a conflict between NSPC 2009, Section 2.23, where branch lines are limited to two feet in length, thereby requiring backflow preventers, and Section 10.5.9, Protection from Fire Systems, where multipurpose fire systems are not required to be provided with backflow preventers.
- 67. At N.J.A.C. 5:23-3.15(b)2x, the definition for "tempered water" would be amended to delete non-specific language, including "desired" before "temperature" and "for its intended use, typically" that is unenforceable and does not belong in a definition.
- 68. At N.J.A.C. 5:23-3.15(b) 3viii, in NSPC/2009, Section 2.23, Dead Ends, section b. would be deleted because it limits the length of a branch line to two feet. This limitation, which would require the installation of backflow preventers, would severely impact the design of a multipurpose sprinkler system. Deleting this section would eliminate a conflict with Section 10.5.9, Protection from Fire Systems, which exempts the multipurpose sprinkler system from back flow preventers. In addition, this limitation impacts the design of the plumbing system without any commensurate benefit. The requirement was first included in the NSPC/2006; this rule amendment would revert to the provisions of the NSPC/2003.
- 69. At N.J.A.C. 5:23-3.15(b)3ix, a new section is added regarding NSPC/2009, Section 2.24, Toilet facilities for construction workers, which would be deleted because it is an OSHA, not a construction code or code enforcement, issue.
- 70. At N.J.A.C. 5:23-3.15(b)4iv and v, in NSPC/2009, following the note to Section 3.1.3, Standards applicable to plumbing materials, the address for Association of Pool and Spa Professionals (APSP) would be provided and APSP 7-2006, the technical standard for entrapment avoidance, which would be adopted by reference. The technical provisions of APSP-7 are consistent with the Virginia Graeme Baker Act, a Federal law that became effective in December 2008. The Virginia Graeme Baker Act requires all newly constructed swimming pools to have, and all existing public swimming pools to be retrofitted to include, entrapment avoidance features. APSP-7 is the technical standard, which provides the details on how to meet that requirement.
- 71. Existing text at N.J.A.C. 5:23-3.15(b)4vii and viii, in section 3.11, dealing with chemical waste piping systems, references to "authority having jurisdiction." in sections 3.11.1 and 3.11.2 would be deleted because "authority having jurisdiction" is no longer in these sections.
- 72. At N.J.A.C. 5:23-3.15(b) 8vi, NSPC/2006, "Section 7.23, safety features for spas and hot tubs," would be deleted and NSPC/2009, "Section 7.23, Safety features for swimming pools, spas, and hot tubs," would be inserted. In addition, a new section, 7.23.1, Entrapment avoidance, would be inserted. This section would require that suction outlets comply with APSP-7, Standard for Suction Entrapment Avoidance in swimming Pools, Wading Pools, Spas, Hot Tubs, and Catch Basins, which is proposed for adoption by reference in the building subcode at N.J.A.C. 5:23-3.15(b)4v. The technical provisions of APSP-7 are consistent with the Virginia Graeme Baker Act, a Federal law that became effective in December 2008. The Virginia Graeme Baker Act requires all newly constructed swimming pools to have, and all existing public swimming pools to be retrofitted to include, entrapment avoidance features. APSP-7 is the technical standard, which provides the details on how to meet that requirement.
- 73. At N.J.A.C. 5:23-3.15(b) 10ix, a new section, numbered 10.20, multi-purpose fire sprinkler systems, would be added to allow the use and provide direction on the standards for the installation of a fire sprinkler system for one- and two-family dwellings that

- complies with the standard for residential sprinklers at P2904 in the IRC/2009, which is being proposed for adoption. A P2904 system provides installation instructions for systems that provide water to plumbing fixtures and to a residential fire suppression system through the same distribution piping system. As discussed at the beginning of these summary statements, the requirement for sprinklers in a newly constructed one- or two-family dwelling would be effective on January 1, 2012.
- 74. Existing text at N.J.A.C. 5:23-3.15(b) 13iv, regarding section 13.1.10.04, Equivalent systems, would be deleted. This change would allow the use of siphonic roof draining systems, an engineered system that is equivalent to the standard roof drainage system.
- 75. At N.J.A.C. 5:23-3.15(b) 19, Appendix E, Special design plumbing systems, would be amended to retain the current rates of rainfall in New Jersey.
- 76. At N.J.A.C. 5:23-3.15(b) 19ii, the text in NSPC/2009, Appendix E regarding Secondary roof drainage, would be deleted. An independent secondary roof drainage system is not necessary and would increase construction costs significantly.
- 77. At N.J.A.C. 5:23-3.15(b) 19, Appendix F, Requirements of Authority Having Jurisdiction, would be deleted in its entirety because the section has been removed from the NSPC/2009.

Energy Subcode (N.J.A.C. 5:23-3.18): International Energy Conservation Code (IECC)/2009

- 78. At N.J.A.C. 5:23-3.18 (a), the International Energy Conservation Code (IECC)/2006), which was adopted as the energy subcode with significant amendments, would be deleted and replaced by the adoption of the International Energy Conservation Code (IECC)/2009) as the energy subcode with minor amendments.
- 79. At N.J.A.C. 5:23-3.18(b) 1, sections of Chapter 1, Administration, of the IECC/2009 that conflict with the administrative of the UCC would be deleted. At N.J.A.C. 5:23-3.18(b)2, definitions contained in other subcodes of the UCC would be deleted. In addition, "Group R-5," the group designation for one-and two-family dwellings that are constructed in compliance with the IRC/2009, would be added.
- 80. At N.J.A.C. 5:23-3.18(b) 3i, the existing text for climate zones would be deleted. In addition, Section 303.3, maintenance information, of the IECC/2009, would be deleted because maintenance is outside the scope of the UCC.
- 81. At N.J.A.C. 5:23-3.18(b) 4, the existing text amending Chapter 4, Residential Energy Efficiency, of the IECC/2006 would be deleted. The text of Chapter 4, IECC/2009 would be proposed for adoption, with the exception of section 403.7, Systems serving multiple dwelling units (Mandatory), which would be deleted to require the use the American Society of Heating, Refrigeration, and Air-conditioning Engineers (ASHRAE) 90.1-2007 standard for energy efficiency in structures that contain multifamily dwellings. The ASHRAE 90.1-2007 standard applies to commercial construction. The construction of multifamily dwellings is more like commercial than it is like residential construction.
- 82. At N.J.A.C. 5:23-3.18(b) 5i, ii, and iii, ASHRAE 90.1-2007, and not Chapter 5 of the IECC/2009, would be proposed for adoption because the United States Department of Energy (DOE) requires each State to certify that its energy code meets ASHRAE 90.1-2007, which is referenced in IECC/2009, Chapter 5 as an acceptable compliance method for commercial construction. In addition, at N.J.A.C. 5:23-3.18(b)4ii, it is made clear that commercial construction includes high-rise multifamily dwellings.

Mechanical Subcode (N.J.A.C. 5:23-3.20): International Mechanical Code (IMC)/ 2009

- 83. At N.J.A.C. 5:23-3.20(a) 1, the International Mechanical Code (IMC)/2009 would be proposed for adoption. Accordingly, throughout the subchapter, references to IMC/2006 would be changed to IMC/2009.
- 84. At N.J.A.C. 5:23-3.20(b) 3vi, the second sentence of Section 307.2.1, Condensate disposal, referring to horizontal slope, would be deleted because it is covered in the plumbing subcode.
- 85. At N.J.A.C. 5:23-3.18(b) 4ii, regarding section 504.8, common exhaust for clothes dryers in multistory structures, would be amended to add, "if provided." The unamended model code would require connection to standby power. Because this code requirement is not Group specific, it would apply to all clothes dryers in any multistory structure. The Department believes this was intended to apply to large multistory buildings. High rise buildings are currently required to have standby power. The Department does not believe that the model code organization intended to require that owners of multistory buildings provide standby power. Therefore, this proposal would require that a clothes dryer exhaust be connected to a standby power supply only where standby power is provided.
- 86. N.J.A.C. 5:23-3.20(b) 5ii would be deleted. The current text requires that pressure vessels be designed and constructed to comply with American Society of Mechanical Engineers (ASME) "Rules for the Construction of Pressure Vessels," Section VII/2004; these requirements are now referenced in IMC/2009, Section 1003.1, General, so it is no longer necessary to amend the model code.
- 87. At N.J.A.C. 5:23-3.20(b) 8iii a new Section 1103.1.1, Acceptable refrigerants, would be added. This section states that only refrigerants acceptable by the United States Environmental Protection Agency (EPA) under its Significant New Alternatives Program (SNAP) would be permitted.

One- and Two-Family Dwelling Subcode (N.J.A.C. 5:23-3.21): International Residential Code (IRC)/2009

- 88. At N.J.A.C. 5:23-3.21(a) 1, (a) 1ii, and (c), the International Residential Code (IRC)/2009 would be adopted and references to IRC/2006 would be changed to IRC/2009.
- 89. At N.J.A.C. 5:23-3.21(c)2v, the definition of "Attic, habitable" would be deleted because it defines a habitable attic as being above the third story of a dwelling unit; in the building subcode, a habitable attic has always been above the second story of a dwelling unit. Retaining the definition of habitable attic as one that is above the second story of a dwelling unit would retain the current limitations and would retain the current level of safety.
- 90. At N.J.A.C. 5:23-3.21(c) 2x, the definition of the term "dwelling unit" would be amended for consistency with the same definition in the building subcode.
- 91. At N.J.A.C. 5:23-3.21(c) 3iv, Section 301.2.1.5, Topographic wind effect, would be deleted because the conditions described apply to mountainous regions in the western United States, which do not exist in New Jersey.
- 92. At N.J.A.C. 5:23-3.21(b) 3vi, the live load for balconies would be retained at the 60 pounds established in the IBC/2006. The IBC/2009 sets the live load for balconies at 40 pounds, the same standard as is provided for a deck. However, should a deck fail, the load is transferred to other supports; should a balcony fail, there is no other structural support for the transferred loads. It is the Department's opinion that the additional safety factor of 60 pounds of live load, which is currently required, is prudent.
- 93. Existing text at N.J.A.C. 5:23-3.21(c)3xix regarding exception 1 to section R317.1,

- dwelling unit separation, which specifies fire sprinkler systems, would be moved to N.J.A.C. 5:23-3.21(c)3viii. The section number would be updated to R3202.3, Two-family dwellings," but there would be no change in text.
- 94. The existing text at N.J.A.C. 5:23-3.21(c) 3ix, would be moved to N.J.A.C. 5:23-3.21(c) 3viii with no change in text.
- 95. At N.J.A.C. 5:23-3.21(c)3xiii, in section R307.1, space required, the reference to plumbing requirements in P2705.1 would be deleted because the plumbing requirements in the IRC/2009 are all deleted; the NSPC/2009 is the plumbing subcode in New Jersey..
- 96. At N.J.A.C. 5:23-3.21(c) 3xiv, the requirement for an egress window in habitable attics without bedrooms would be deleted. The installation of an egress window in this space should be contingent upon the existence of a bedroom. The Rehabilitation Subcode requires an egress window when a space is converted to a bedroom; it is reasonable to have the same threshold in the requirements for new construction.
- 97. At N.J.A.C. 5:23-3.21(c)3xv, the requirement for 8 ¼" for floor elevations at doors, Section R311.3.1 (egress) and Section R311.3.2 (other exterior doors) would be amended to ensure consistency with riser height.
- 98. Existing text at N.J.A.C. 5:23-3.21(c) 3iv, regarding the dimensions of handrails, would be deleted because these provisions are included in the IRC/2009 at Section R311.7.6.3, Grip size.
- 99. At N.J.A.C. 5:23-3.21(c) 3xxi, section R313.1, townhouses, and at N.J.A.C. 5:23-3.21(c) 3xxiii, section R313.2, one- and two-family dwellings, would be amended to provide an effective date of January 1, 2012. Taken together, these sections require the installation of sprinklers in townhouses and in one-and two-family dwellings. unamended IRC/2009 requires the installation of sprinklers in newly constructed townhouses without delay and provides an effective date of January 1, 2011 for the installation of sprinklers in newly constructed one- and two-family dwellings. amended effective date of January 1, 2012 would ensure that there is ample time for training of design professionals, contractors, and code enforcement officials. Providing time for training would have the additional benefit of allowing time for the construction industry to regain its strength. The Department believes that the installation of a sprinkler system in a townhouse or one- or two family dwelling would not greatly increase the cost of construction and would significantly increase life safety. In addition, the exception in Section R313.1, Townhouse automatic fire sprinkler system, which exempts work in existing buildings, would be deleted because work in existing buildings is addressed by the rehabilitation subcode.
- 100. At N.J.A.C. 5:23-3.21(c)3xxii, "NFPA 13D" would be inserted after "Section P2904" in Section R313.1.1, Design and installation, to make it clear that either a National Fire Protection Association (NFPA) 13D system or a system that complies with Section P2904 of the IRC may be installed.
- 101. Existing text at N.J.A.C. 5:23-3.21(c) 3xxi, regarding vapor retarders, would be deleted. It is no longer required because similar requirements have been moved into other sections of the IRC/2009, as follows: vapor retarder requirements are now in Sections R405.2.2 (foundations); R506.2.3 (floors); R601.3 (walls); and R806.2 and 4 (ceiling/roof).
- 102. Existing text at N.J.A.C. 5:23-3.21(c) 3xxx, would be deleted because the new Section R315, Carbon Monoxide Alarms, of the IRC/2009 contains requirements that are consistent with the current amendments to Section R325, so that the amendments are no

longer necessary.

- 103. At N.J.A.C. 5:23-3.12(c) 3xxxiv, Section R323, Storm Shelters, would be deleted because the requirements would place heightened requirements, including siting, occupant density, and plumbing fixtures, on these facilities. The Department believes that the existing code requirements are more than adequate to protect public health and safety and does not believe that the additional requirements, which add significantly to the cost of constructing a shelter, add a commensurate measure of safety.
- 104. Existing text at N.J.A.C. 5:23-3.21(c) 4iv, which amends R404.1, concrete and masonry foundation walls, would be deleted. It is no longer required because these sections related to foundation walls were removed from the IRC/2009.
- 105. Existing text at N.J.A.C. 5:23-3.21(c)4v, is no longer required because Section R404 in the IRC/2009 was reorganized and insulating concrete form foundation walls (old Section R404.4) is no longer included in as a special section. Insulating concrete foundation walls are now addressed in section R404.4.1.3.6, concrete forms, which is being proposed for adoption. There is no change in requirements.
- 106. At N.J.A.C. 5:23-3.21(c)4viii, duct system be tested for leakage the text of the IBC/2009, precast concrete foundations would be inserted as new section R406.4.4, Precast concrete foundations, to ensure that the requirements for foundation drainage for one- and two-family buildings is as effective as that required for residential buildings in the IBC/2009.
- 107. Existing text at N.J.A.C. 5:23-3.21(c) 7iii would be deleted. It is no longer required because it deleted references to the climate zones in the energy code; the text of R806.4, Unvented attic assemblies, no longer contains that reference.
- 108. At N.J.A.C. 5:23-3.21(c) 17i, section M2201.2, above-ground tanks, would be amended. The IRC/2009 establishes a maximum limit for fuel storage within a residential building of 660 gallons. The exception included in this section allows the storage of more than 660 gallons inside a building provided the storage complies with NFPA 31, Installation of Oil Burning Equipment. By deleting "inside buildings" from this section we would continue to allow that more than 660 gallons may be stored outside.
- 109. At N.J.A.C. 5:23-3.21(b)19x, in section G2413.6.1, Liquefied petroleum gas systems, the maximum operating pressure for liquefied petroleum gas systems would be established as 20 psig (pounds per square inch gas). This section is added because the maximum operating pressure is established in Chapter 1 of the IRC/2009, which is being deleted.
- 110. At N.J.A.C. 5:23-3.21(c)25iv would be modified because Appendix G now references APSP 7, the technical standards for entrapment avoidance, which is being proposed for adoption by reference; therefore, a link to the plumbing subcode is no longer required.
- 111. At N.J.A.C. 5:23-3.21(b) 21i, a new section is being proposed that would provide the technical requirements for installing a fire sprinkler system in compliance with P2904.

Fuel Gas Subcode (N.J.A.C. 5:23-3.22): International Fuel Gas Code (IFGC)/2009

- 112. At N.J.A.C. 5:23-3.22(a) 1 and N.J.A.C. 5:23-3.22(a) 1ii, the IFGC/2009 would be proposed for adoption and all references to IFGC/2006 would be replaced with references to IFGC/2009.
- 113. At N.J.A.C. 5:23-3.22(a)2 the change regarding the ICC Electrical Code would be

removed because the International codes now reference NFPA 70, which NJ already adopts as the electrical subcode at N.J.A.C. 5:23-3.16. A similar change is made at N.J.A.C. 5:23-3.22(b)2i.

114. At N.J.A.C. 5:23-3.22(b) 2ii, the definition of "alteration" would be deleted because it is defined in the rehabilitation subcode, N.J.A.C. 5:23-6.

115. At N.J.A.C. 5:23-3.22(b) 3v, section 307.1, evaporators and cooling coils, would be deleted because they are covered in the plumbing subcode (N.J.A.C. 5:23-3.15).

Elevator Safety Subcode (N.J.A.C. 5:23-12.12)

116. The technical standard that applies to the installation and inspection of elevator devices, American Society of Mechanical Engineers (ASME) 17.1, which is adopted as part of the building subcode, would be adopted as part of the elevator safety subcode, with the exception of specified sections that address working clearances in hoistways and in elevator pits, which are Occupational Safety and Health (OSHA) issues; they are not construction code or elevator safety subcode issues.

As the Department has provided a 60-day comment period on this notice of proposal, this notice is excepted from the rulemaking calendar requirement pursuant to N.J.A.C. 1:30-3.3(a)5.

Social Impact

Adopting the IBC/2009, IRC/2009, NSPC/2009, IMC/2009, IFGC/2009 and IECC/2009 would have a positive social impact. It would maintain consistency throughout the UCC by providing a single, clear, and up-to-date set of technical standards for construction, which would promote a more uniform enforcement of the construction code.

The adoption of the requirement in the IRC/2009 for sprinkler systems for oneand two-family dwellings would have a positive social impact in the lives that would be saved. At the same time, establishing an effective date that is three years in the future would increase that impact by ensuring that, when the sprinkler systems would be required, all involved, design professionals, builders, contractors, and code enforcement officials, would have had the opportunity to receive training in the design and installation of these systems.

The proposed amendments to adopt the most recent model energy codes would have a positive social impact by helping to conserve energy. As fuel prices rise and the demand for alternative energy sources increases, the need for more thermally efficient homes and buildings also increases. The most recent model energy code contains cost-saving energy conservation requirements. Increased energy conservation requirements will result in an overall decrease in the amount of energy consumed and will help to preserve fuel sources. Energy conservation has the added societal benefit of reducing greenhouse gas emissions.

Economic Impact

The Department anticipates that the proposed amendments to adopt the IBC/2009, IRC/2009, NSPC/2009, IMC/2009, IFGC/2009 and IECC/2009 would have a positive economic impact because clear and modern technical standards promote cost effective construction.

The economic impact of the requirement for sprinklers is discussed in the Housing Affordability Impact statement below.

The most recent model energy codes include provisions that boost energy efficiency in homes and buildings to reduce the overall amount of energy consumed.

Such provisions include requirements for the installation of efficient mechanical equipment, higher efficiency windows in some cases, and increased insulation requirements across the State. Because the proposed amendments require upgrades in energy efficiency, there will be an associated increase in construction costs. However, because newly manufactured mechanical equipment meets today's energy efficiency standards and because the purchase price of high efficiency windows is comparable to the purchase price of standard windows, the Department expects the increase in cost to be modest. Estimates from US Department of Energy's (DOE's) Building Energy Codes Program (BECP) residential experts suggest the 2009 IECC is at least 15 percent and possibly even 18-20 percent more energy efficient than its 2006 predecessor. The change that requires pressure testing in residential construction to verify duct sealing alone is estimated to reduce energy consumption in new homes by an average of eight to 12 percent. Estimates produced by ICF International for the Energy Efficient Codes Coalition show a national average weighted energy cost savings to the new homeowner of \$235 per year. It should be noted that these estimates likely substantially understate actual cost savings because they do not incorporate expected increases in energy prices over the life of the home. New homebuyers and building owners can expect lower monthly energy bills as a result of the proposed amendments, which will pay back any increases in construction costs.

Federal Standards Statement

No Federal standards analysis is required for the amendments to adopt the IBC/2009, IRC/2009, NSPC/2009, IMC/2009 and IFGC/2009 because the amendments are not being proposed 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.

Regarding the proposed adoption of the most recent model energy codes, the American Recovery and Reinvestment Act of 2009 requires that the State adopt a building energy code for residential buildings that meets or exceed the most recently published International Energy Conservation Code (the IECC/2009) and a building energy code for commercial buildings that meets or exceeds the ANSI/ASHRAE/IESNA Standard 90.1–2007.

Jobs Impact

The Department anticipates that the requirement that sprinklers be installed in one- or two family dwellings could create jobs in the construction industry for design professionals who would include them in their designs and for plumbers and fire sprinkler contractors who would install them. Admittedly, because the department is proposing an effective date of January 1, 2012 for this requirement, the job creation would not be immediate. However, in the meantime, some jobs would be created to provide the necessary training.

Agriculture Industry Impact

The Department does not anticipate that the proposed amendments would impact the agriculture industry.

Regulatory Flexibility Analysis

The proposed amendments impose technical compliance requirements on builders, some of which are "small businesses" as defined under the Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq. The proposed amendments establish code requirements that provide technical standards for construction, plumbing work,

mechanical and fuel gas installations, and that promote energy conservation for homes and buildings. Builders would be required to comply with the requirements of the building, plumbing, mechanical, and fuel gas subcodes of the UCC as would any other entity performing construction, plumbing work or mechanical or fuel gas installations in the State. There are "small businesses" as defined under the Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq. that might have improved work opportunities (see Job Impact) as a result of the addition of the sprinkler requirement for one- and two-family dwellings, but the adoption of the 2009 model codes would not introduce any compliance, recordkeeping, or compliance burdens on small businesses.

Builders would recoup increases in the cost of construction through the sales prices of new homes and buildings. Building owners or occupants would recoup increases in the initial cost through energy savings. The proposed amendments would not impose any additional reporting or recordkeeping requirements. The proposed amendments would require an additional professional service. As discussed in the summary statements, the blower door and duct sealing tests that would be required of newly constructed residences would be required to be performed by a skilled and certified professional. Overall, because the provisions of the energy subcode have been simplified, as stated in the Summary above, documenting compliance will be made easier as a result of the proposed amendments.

Smart Growth Impact

The Department does not expect that the proposed amendments would have any impact upon either the achievement of smart growth or implementation of the State Development and Redevelopment Plan.

Smart Growth Development Impact

This proposal is intended to update various subcodes of the State Uniform Construction Code that are applicable statewide. It would be most unlikely to have any impact upon housing production within planning areas one and two or within designated centers under the State Development and Redevelopment Plan.

Housing Affordability Impact

The housing affordability impact of the sprinkler requirement in one- and two-family dwellings is not expected to be great. In fact, based on data from the National Institute of Standards and Technology (NIST), the average cost of installing one of the most basic fire sprinkler systems, the IRC/2009 P2904 or the NFPA 13D system is reasonable. Estimate for newly constructed single family detached homes follow: in a two-story, colonial with a basement, 3338 square feet, the cost would range between \$2000 and \$2500.; in a three-story townhouse, the cost would range between \$1900 and \$2300; in a one-story ranch house, the cost would range between \$800 and \$1000. Larger sprinkler systems that are stand alone and are completely separate from the domestic water distribution system would cost more. However, using the cost of the stand alone system as the estimate is not representative of the true cost because stand alone systems are permitted, but are not required, in one- or two-family dwellings.

These proposed amendments, in particular the proposal to adopt the IECC/2009, would impact both housing production costs and housing affordability. As stated in the Economic Impact Analysis above, there would be a modest increase in housing production costs. (The actual increase in cost would depend upon many factors,

including the size of the structure and its orientation, configuration and amount of glazing.) This increase would be offset by savings in energy costs which would have a positive impact on housing affordability.

Full text of the proposal follows (additions indicated in boldface <u>thus</u>; deletions indicated in brackets [thus]):

5:23-2.20 Tests and special inspections

- (a) (No change.)
- (b) All special inspections, as provided in the building subcode, shall apply to Class I buildings **and any building that contains a smoke control system**. A special inspector shall be independent of the contractor and shall be responsible to the building owner or building owner's agent. Special inspectors shall be certified in the appropriate specialty.
- (c) (e) (No change.)
- 5:23-3.6 Standards; accepted practice
- (a) (No change.)
- (b) When this chapter and the subcodes, national standards and appendices it adopts by reference are silent, a manufacturer's recommendations for the installation of any material or assembly may be considered to be accepted engineering practice; provided, however, that a manufacturer's recommendations shall not be read to overrule this chapter or any subcode, national standard or appendix which it adopts by reference.
- 1. Exception: Where enforcement of a code provision would violate the condition(s) of the listing of the equipment or appliance, the more restrictive condition(s) shall apply.

5:23-3.14 Building subcode

- (a) Rules concerning the building subcode are as follows:
- 1. Pursuant to authority of P.L. 1975, c. 217, as modified by P.L. 1996, c. 53, the Commissioner hereby adopts the model code of the International Code Council, 2006 International Building Code, known as the ["IBC/2006."] "IBC/2009." This code is hereby adopted by reference as the building subcode for New Jersey subject to the modifications stated in (b) below.
- i. Copies of this code may be obtained from the International Code Council at 4051 West Flossmoor Road, Country Club Hills, Illinois 60478-5795.
- ii. The [IBC/2006] **IBC/2009**, as amended, may be known and cited as the "building subcode."
- 2. Any references to the [mechanical code,] <u>International</u> [p] <u>P</u>lumbing [c] <u>C</u>ode, <u>the International Existing Building Code</u>, International Residential Code, <u>or the ICC/ANSI A117.1</u> standard (including reference to Chapter 11) [or the ICC Electrical Code] listed in Chapter 35 shall be considered a reference to the appropriate [adopted mechanical,] plumbing <u>subcode</u>, <u>and the</u> one- and two-family dwelling [or electrical] subcode referenced in N.J.A.C. 5:23-3 [or to the] <u>, the rehabilitation subcode</u> , <u>N.J.A.C.</u> <u>5:23-6</u>, <u>or to the</u> barrier free subcode, N.J.A.C. 5:23-7, as appropriate.
- (b) The following chapters of the building subcode are modified as follows:
- 1. Chapter 1, <u>Scope and</u> 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.

- [i. In Section 308.2, Group I-1; Section 308.3, Group I-3; Section 308.5, Group I-4, daycare facilities; Section 310.1, Residential Group R; and Section 1704.1, General, in Exception 3, "as applicable in Section 101.2" shall be deleted.]
 - 2. Chapter 2, Definitions, shall be amended as follows:
 - i. xii. (No change.)

xiii. <u>The definition of "Registered Design Professional in Responsible Charge" shall be deleted.</u>

<u>xiv.</u> The definition of "structure" shall be deleted and the following shall be inserted: "STRUCTURE. A combination of materials to form a construction for occupancy, use, or ornamentation, whether installed on, above, or below the surface of a parcel of land; provided the word "structure" shall be construed when used herein as though followed by the phrase "or part or parts thereof and all equipment therein" unless the context clearly requires a different meaning.

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

i. <u>In Exception 4 of Section 303.1, entitled "Assembly Group A", delete the following text: "Chapter 11" and insert "the Barrier Free Subcode, N.J.A.C. 5:23-7" in its place.</u>

[i. In Table 307.1(2), Maximum Allowable Quantity Per Control Area of Hazardous Materials Posing a Health Hazard[a,b,c,j], the following shall be inserted as the fourth row of the table under "Material," "Storage[d]," "Use-Closed Systems[d]," and "Use-Open Systems[d]:"

Radioactive[k] 25 REM unsealed 100 REM 25 REM source 100 REM sealed source sealed source

- k. Maximum dosage allowed in any single whole-body short-term
 - (1 hour or less) exposure.
- ii. In Section 307.2, Definitions, the following definition shall be inserted: "RADIOACTIVE MATERIAL. Any material or combination of materials that spontaneously emit ionizing radiation."
- iii.] <u>ii.</u> In Section 303.1, Delete "Dance halls (not including food or drink consumption)" from Group A-3 and insert "Dance halls" into Group A-2.
- <u>iii.</u> In Table 307.1(2), Maximum Allowable Quantity Per Control Area of Hazardous Materials Posing a Health Hazard[a,b,c,j], the following shall be inserted as the fourth row of the table under "Material," "Storage[d]," "Use-Closed Systems[d]," and "Use-Open Systems[d]:"

Radioactive[j] 25 REM unsealed source 100 REM sealed source sealed source

j. Maximum dosage allowed in any single whole-body short-term

(1 hour or less) exposure.

iv. In Section 307.2, Definitions, the following definition shall be inserted: "RADIOACTIVE MATERIAL. Any material or combination of materials that spontaneously emit ionizing radiation."

v. In Section 307.6, High-hazard Group H-4, "Radioactive material" shall be inserted in the list of materials.

[iv.] vi. Section 308.2, Group I-1, shall be amended as follows: In the first sentence, "16" shall be deleted and "5" shall be inserted. In the second sentence, "responding to" shall be deleted and "slow evacuation in" shall be inserted. In addition, "For the purposes of applying this provision, slow evacuation shall mean the movement of all occupants, residents, and staff to an exit in more than three minutes, but not more than thirteen minutes." shall be inserted as the third sentence. In the list of types of occupancies, "residential board and care facilities, assisted living facilities" shall be deleted and "boarding houses" shall be inserted. In the same list, "abuse" shall be inserted after "drug." Also, in the last paragraph, "in accordance with Section 101.2" and "A facility such as above, housing at least six and not more than 16 persons shall be classified as a Group R-4" shall be deleted and the following definition of "boarding house" shall be inserted:

"Boarding House: A building arranged or used for single occupancy where meals or personal or financial services are provided to the residents."

[v.] <u>vii.</u> In Section 308.3, Group I-2, "who are not capable of self-preservation" shall be deleted and "where evacuation is impractical [" shall be inserted]. For the purposes of applying this provision, impractical evacuation shall mean the movement of all occupants, residents, and staff to an exit in more than 13 minutes<u>" shall be inserted</u>. In the list of types of occupancies, "assisted living facilities" shall be inserted.

[vi.] <u>viii.</u> In Section 308.5, Group I-4, in the second sentence, "with" shall be deleted and "accessory to a dwelling unit and having" shall be inserted <u>and "in accordance with Section 101.2 shall be deleted"</u>.

Renumber vii.] as ix. No change in text.

[viii.] <u>x. In Section 308.5.2</u>, Child Care Facility, "<u>more than five</u>" shall be deleted. [and the following shall be inserted: "A facility that provides supervision and personal care on less than a 24-hour basis for children 2 1/2 years of age or less shall be classified as Group I-4."] In the same section, the exception shall be deleted <u>and</u> <u>replaced with the following:</u>

Exception: Child day care facilities, accessory to a dwelling unit, serving five or fewer persons of any age for less than 24 hours shall be considered Group R-3 or R-5, as applicable.

[ix.] <u>xi.</u> Section 310, Residential Group R, shall be deleted and the following [definitions] shall be inserted:

310.1 Residential Group R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I. Residential occupancies shall include the following:

"(1) R-1 Residential occupancies containing sleeping units where the occupants are primarily transient (less than 30 days) including:

Hotels (including motels) having transient occupancy

Rooming houses, with more than five residents, having transient occupancy

Vacation timeshare properties

(2) R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

Apartment houses

Convents

Dormitories

Fraternity and sorority houses

Hotels (non transient)

Monasteries

Motels (non transient)

Rooming houses with more than five residents, not having transient occupancy

Therapeutic residences with more than 16 residents

(3) R-3 Detached one- and two-family dwellings greater than three stories in height, multiple single-family townhouses greater than three stories in height, attached two-family dwellings separated from adjacent units by firewalls, and other one- and two-family dwellings that are outside the scope of the one- and two-family dwelling subcode. Group R-3 includes:

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.)

Adult and child day care facilities, accessory to a dwelling unit, serving five or fewer persons of any age for less than 24 hours.

Group Homes with 5 or fewer occupants, all of whom are capable of prompt self-evacuation. For the purpose of applying this requirement, prompt self-evacuation shall mean the movement to an exit in three minutes or less.

Rooming houses with five or fewer residents.

Therapeutic residences with five or fewer residents.

(4) R-4 Therapeutic residences including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3 except as otherwise provided in the code.

(5) R-5 Detached one- and two-family dwellings not more than three stories in height and multiple single-family townhouses not more than three stories in height designed and constructed in accordance with the one- and two-family dwelling subcode. Group R-5 also includes:

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.)

Adult and child day care facilities, accessory to a dwelling unit, serving five or fewer persons of any age for less than 24 hours.

Group Homes with 5 or fewer occupants, all of whom are capable of prompt self-evacuation. For the purpose of applying this requirement, prompt self-evacuation shall mean the movement to an exit in three minutes or less.

Rooming houses with five or fewer residents.

Therapeutic residences with five or fewer residents."

- 4. (No change.)
- 5. Chapter 4, Special Detailed Requirements Based on Use and Occupancy, shall be amended as follows:
 - i. (No change.)
- ii. In Section [403.10] **403.4.7**, Standby power, "[Section 2702] **Chapter 27**" shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.
- iii. In Section [403.11] <u>403.4.8</u>, Emergency power systems, "[Section 2702] <u>Chapter 27</u>" shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.
- iv. In Section [405.9] <u>405.8</u>, Standby power, "[Section 2702] <u>Chapter 27</u>" shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.
- v. In Section [405.10] <u>405.9</u>, Emergency power, "[Section 2702] <u>Chapter</u> <u>27</u>" shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.
 - vi. -vii. (No change.)
- viii. In Section [412.1.5] <u>412.3.5</u>, Standby power, "[Section 2702] <u>Chapter 27</u>" shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.
 - ix. (No change.)
- x. <u>In Section 414.1.3, Information required, "building official" shall</u> be deleted in the first and third sentences and "fire protection subcode official" shall be inserted.

[x.] <u>xi.</u> In Section 414.5.4, Standby or electrical power, "[this code or the ICC Electrical Code] <u>Chapter 27</u>" shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.

Renumber xi. as xii. (No change in text.)

[xii.] <u>xiii.</u> <u>In Section 419.7, Accessibility, "Chapter 11" shall be deleted and "the barrier free subcode (N.J.A.C. 5:23-7)" shall be inserted.</u>

<u>xiv.</u> In Section [420.8] <u>421.8</u>, Standby power, "Chapter 27" shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.

xv. Section 423, Storm Shelters, shall be deleted in its entirety.

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

i. Section 501.2, Address identification, shall be deleted in its entirety.

<u>ii.</u> Table 503, Allowable Heights and Building Areas, shall be amended as follows:

- (1) Under construction Type VA for Group A-1, "2" shall be deleted and "1" shall be inserted.
- (2) Under construction Type IB for Group A-2, "11" shall be deleted and "3" shall be inserted. Under construction Types IIA and IIB for Group A-2, "3" and "2" shall be deleted and "2" and "1" shall be inserted, respectively. Under construction Types IIIA and IIIB for Group A-2, "3" and "2" shall be deleted and "2" and "1" shall be inserted, respectively. In addition, under construction Type IV for Group A-2, "3" shall be deleted and "2" shall be inserted. Finally, under construction Type VA for Group A-2, "2" shall be deleted and "1" shall be inserted.
- (3) Under construction Type IB for Group A-3, "11" shall be deleted and "5" shall be inserted. In addition, under construction Type VA for Group A-3, "2" shall be deleted and "1" shall be inserted.
- (4) Under construction Type IB for Group A-4, "11" shall be deleted and "5" shall be inserted. In addition, under construction Type VA for Group A-4, "2" shall be deleted and "1" shall be inserted.
- (5) The maximum number of stories and maximum allowable area for Group A-5, construction Types IIIB, IV, VA and VB shall be deleted.
- (6) Under construction Type IB for Group B, "11" shall be deleted and "7" shall be inserted. In addition, under construction [Type IIB for Group B, "4" shall be deleted and "3" shall be inserted. Finally, under construction] Type IIIA [and IIIB] for Group B, "5" [and "4"] shall be deleted and "4" [and "3"] shall be inserted[, respectively].
- (7) Under construction Type IB for Group F-1, "11" shall be deleted and "6" shall be inserted.
- (8) Under construction Type IB for Group F-2, "11" shall be deleted and "7" shall be inserted.
- (9) Under construction Type IA for Group H-2, "UL" shall be deleted and "3" shall be inserted. In addition, the maximum number of stories and

maximum allowable area for Group H-2, construction Type VB shall be deleted and "NP" shall be inserted.

- (10) Under construction Type IA for Group H-3, "UL" shall be deleted and "7" shall be inserted. In addition, under construction Type IIIA for Group H-3, "4" shall be deleted and "3" shall be inserted.
- (11) Under construction Type IA for Group H-4, "UL" shall be deleted and "7" shall be inserted. In addition, under construction Type IIIA for Group H-4, "5" shall be deleted and "4" shall be inserted.
- (12) Under construction Type VA for Group I-3, "2" shall be deleted and "1" shall be inserted. In addition, the maximum number of stories and the maximum allowable area for Group I-3, construction Type VB shall be deleted and "NP" shall be inserted.

(13) <u>Under Group, add superscript "e" to Group I-4. In</u> addition, the following note shall be added to the table: "e. Child care facilities of Types IIB, III, IV or V construction shall be limited to 20 feet and 1 story."

- [(13)] (14) Under construction Type IB for Group M, "11" shall be deleted and "6" shall be inserted. [Under construction Type IIB for Group M, "4" shall be deleted and "2" shall be inserted.] In addition, under construction Type[s] IIIA [and IIIB], "4" shall be deleted and "3" [and "2"] shall be inserted[, respectively]. Finally, under construction Type VA, "3" shall be deleted and "2" shall be inserted.
- [(14)] (15) Under construction Type IB for Group R-1, "11" shall be deleted and "9" shall be inserted. In addition, under construction Type IIB for Group R-1, "4" shall be deleted and "3" shall be inserted. Finally, under construction Type IIIB for Group R-1, "4" shall be deleted and "3" shall be inserted.
- [(15)] (16) Under construction Type IB for Group R-2, "11" shall be deleted and "9" shall be inserted. In addition, under construction Type IIB for R-2, "4" shall be deleted and "3" shall be inserted. Finally, under construction Type IIIB for Group R-2, "4" shall be deleted and "3" shall be inserted.
- [(16)] (17) Under construction Type IB for Group R-3, "11" shall be deleted and "4" shall be inserted. Under construction Type IIB for Group R-3, "4" shall be deleted and "3" shall be inserted. In addition, under construction Type IIIB for Group R-3, "4" shall be deleted and "3" shall be inserted. Finally, under construction Type VB for Group R-3, "3" shall be deleted and "2" shall be inserted.
- [(17)] (18) Under construction Type IB for Group R-4, "11" shall be deleted and "4" shall be inserted. Under construction Type IIB for Group R-4, "4" shall be deleted and "3" shall be inserted. In addition, under construction Type IIIB for Group R-4, "4" shall be deleted and "3" shall be inserted.
- [(18)] (19) Under construction Type IB for Group S-1, "11" shall be deleted and "5" shall be inserted. [Under construction Type IIB for Group S-1, "3" shall be deleted and "2" shall be inserted.] In addition, [under construction Type IIIB for Group S-1, "3" shall be deleted and "2" shall be inserted. Finally,] under construction Type VA for Group S-1, "3" shall be deleted and "2" shall be inserted.

[(19)] (20) Under construction Type IB for Group S-2, "11" shall be deleted and "7" shall be inserted. [Under construction Type IIB for Group S-2, "4" shall be deleted and "3" shall be inserted.] In addition, [under construction Type IIIB for Group S-2, "4" shall be deleted and "3" shall be inserted. Finally,] under construction Type VA for Group S-2, "4" shall be deleted and "3" shall be inserted.

[(20)] (21) Use Group U shall be deleted.

<u>iii. In Section 504.2, Automatic sprinkler system increase, delete Exception #1 in its entirety and insert in its place:</u>

1. Buildings, or portions of buildings, of Type IIB, III, IV or V construction classified as a Group I-2 occupancy or Group I-4 child care facility.

Renumber ii - v. as iv - vii. (No change in text.)

- [vi.] <u>viii.</u> In Table [508.3.3] <u>508.4</u>, Required Separation of Occupancies (Hours), "U^d" shall be deleted in the [fourth row] <u>fifth row and the fifth column</u> of the table.
 - 7. Chapter 6, Types of Construction, shall be amended as follows:
 - i. (No change.)
- ii. In Section 602.3, Type III, "(See FTO 14)" shall be inserted after "**noncombustible** materials." In addition, the second sentence shall be deleted.
 - 8. Chapter 7, Fire-Resistance-Rated Construction, shall be amended as follows:
- i. <u>In Section 703.3, Alternative Methods for determining fire resistance, Item #5 is amended to delete "Section 104.11" and insert "N.J.A.C. 5:23-3.7" in its place.</u>
- <u>ii. In Section 705.5, Fire-resistance rating, "10 feet (3048 mm)" shall be deleted in the second and third sentence and "5 feet (1524mm)" shall be inserted.</u>
- <u>iii.</u> In Table [705.4] <u>706.4</u>, Fire Wall Fire Resistance Ratings, under the heading "Group," "U" shall be deleted.
- [ii.] <u>iv.</u> Section [705.5] <u>706.5</u>, Horizontal continuity, [Section 705.5.1] <u>706.5.1</u>, Exterior walls, and Section [705.5.2] <u>706.5.2</u>, Horizontal projecting elements, shall be deleted in their entirety. Section 707.6 of the 1996 BOCA National Building Code shall be inserted as follows: "Horizontal Continuity. Firewalls shall be made smoke tight at the junction of exterior walls. In exterior wall construction employing studs, the wall shall extend through the stud space to the exterior sheathing."
- [iii.] <u>v.</u> In [Table 706.3.9] <u>Table 707.3.9</u>, Fire-Resistance Rating Requirements For Fire Barrier Assemblies <u>or Horizontal Assemblies</u> Between Fire Areas, the last row containing "U" and "1" shall be deleted.
- [iv.] <u>vi.</u> In Section [707.2] <u>708.2</u>, Shaft enclosure required, Exception 11 shall be deleted in its entirety.
- [v.]vii. Section [707.14.1] 708.14.1, Elevator lobby, shall be amended as follows: In the first sentence, "In buildings having occupied floors greater than 75 feet

above the lowest level of fire department vehicle access" shall be inserted before "An." In the same section, Exceptions 4 and 6 shall be deleted in their entirety.

- [vi.] <u>viii.</u> Section [707.14.2] <u>708.14.2</u>, Enclosed elevator lobby pressurization alternative, shall be deleted in its entirety.
 - 9. Chapter 9, Fire Protection Systems, shall be amended as follows:
- i. In Section 901.3, Modifications, "remove or" shall be deleted. Additionally, "building official" shall be deleted and "fire protection subcode official" shall be inserted.
- <u>ii. In Section 901.5, Acceptance test, in the second sentence, "building</u> official" shall be deleted and "fire protection subcode official" shall be inserted.
- <u>iii.</u> In Section 901.6.3, Group H, in the exception, "building official" shall be deleted and "fire protection subcode official" shall be inserted.

Renumber i. - ii. as iv. - v. (No change in text.)

- [iii.] <u>vi.</u> Section 903.2.1.2., Group A-2, shall be amended to add a new section 903.2.1.2.1 as follows: "903.2.1.2.1 In Group A-2 Nightclubs, the automatic sprinkler system shall be tied to the performance sound system and to the house lights in such a way that activation of the automatic sprinkler system mutes the performance sound system and restores the intensity of illumination to that required by [1003.2.11.1] **1006.2**"
- [iv.] <u>vii.</u> In Section [903.2.5] <u>903.2.6</u>, Group I, the exception shall be deleted and the following shall be inserted:

"Exceptions

- 1. An automatic fire sprinkler system installed in accordance with Section 903.3.1.2. shall be allowed in Group I-1 facilities.
- 2. For other than buildings of construction Types IIIB or VB, an automatic fire sprinkler system shall not be required for Group I-4 child care facilities that are located at the level of exit discharge and that accommodate 100 or fewer children and in which each child care room has an exit door directly to the exterior."
- [v. Section 903.2.10.1, Stories and basements without openings, shall be deleted in its entirety and Section 904.10 of the 1996 BOCA National Building Code shall be inserted as follows: "Windowless story: An automatic fire sprinkler system shall be provided throughout every story or basement of all buildings where there is not provided at least one of the following types of openings:
- 1. An exterior stairway or an outside ramp that conforms to the requirements of Section 1023, leading directly to grade in each 50 linear feet (15240 mm) or fraction thereof of exterior wall in the story or basement, on at least one side of the building.
- 2. Openings entirely above the adjoining ground level totaling 20 square feet (1.9 m²) in each 50 linear feet (15240 mm) or fraction thereof of exterior wall in the story or basement, on at least one side of the building. Openings shall have a least dimension of not less than 22 inches (559 mm), and shall have a minimum net clear opening of 5 square feet (0.5 m²). Access to such openings from the exterior shall be provided to the

fire department and such openings shall be unobstructed to allow fire fighting and rescue operations from the exterior.

Where openings in a story are provided on only one side and the opposite wall of such story is more than 75 feet (22860 mm) from such openings, the story shall be equipped throughout with an automatic fire sprinkler system or openings as specified herein shall be provided on at least two sides of the exterior walls of the story. If any portion of a basement is located more than 75 feet (22860 mm) from the openings required in this section, the basement shall be equipped throughout with an automatic sprinkler system.

Exception: Occupancies in Group R-3."]

<u>viii. In Section 903.2.11.1, Stories without openings, ", of all buildings</u> where the floor area exceeds 1,500 square feet (139.4 m²) and" shall be deleted.

[vi.] <u>ix.</u> New Section [903.2.14] <u>903.2.13</u>, Automatic sprinkler system thresholds, shall be inserted as follows: "An automatic sprinkler system shall be required in accordance with Section 903.3.1.1 when the maximum area is exceeded for the following construction types of Groups B, F-2, and S-2 according to table [903.2.14] <u>903.2.13</u>, Automatic Sprinkler System Thresholds. All others not listed shall follow the applicable requirements as set forth in the IBC/2006."

"Automatic Sprinkler System Thresholds

Group

В

	IIB	IIIB	VB
Story	Max. Area	Max. Area	Max. Area
1	36,000	*	*
2	72,000	*	*
	(36,000 per floor)		
3	99,360	99,360	*
	(36,000 per floor)	(36,000 per floor)	
Group	•	, , , <u>-</u>	
F-2			
	IIB	IIIB	VB
Story	Max. Area	Max. Area	Max. Area
1	36,000	*	18,000
2	72,000	*	36,000
	(36,000 per floor)		(18,000 per floor)
3	99,360	*	*
	(36,000 per floor)		
Group	•		
S-2a			
	IIB	IIIB	VB
Story	Max. Area	Max. Area	Max. Area
1	36,000	36,000	18,000
2	72,000	72,000	36,000
	(36,000 per floor)	(36,000 per floor)	(18,000 per floor)
3	99,360	99,360	*

"Automatic Sprinkler System Thresholds Group

В

IIB IIIB VB

Story Max. Area Max. Area Max. Area

(36,000 per floor) (36,000 per floor)

a. Exception--Open parking structures in accordance with Section 406.3

Renumber vii.- viii. as x. - xi. (No change in text.)

[ix.] <u>xii.</u> In Section 903.4.1, [Signals] <u>Monitoring</u>, ["or, when approved by the fire code official, shall sound an audible signal at a constantly attended location" shall be deleted. In addition, in the same section,] "fire code official" shall be deleted and "fire protection subcode official" shall be inserted.

Renumber x. –xiii. as xiii. – xvi. (No change in text.)

[xiv.] <u>xvii.</u> Sections 905.3.2 [through 905.3.7 shall be renumbered as 905.3.3 through 905.3.8] <u>shall be renumbered as 905.3.3</u> with no change in text.

xviii. Section 905.3.3, Covered mall buildings, shall be renumbered as 905.3.4. Additionally, "or 905.3.2" shall be added after "905.3.1" in the first and second sentence.

<u>xix. Sections 905.3.4 through 905.3.7 shall be renumbered as 905.3.5</u> through 905.3.8 with no change in text.

Renumber xv. -xvii. as xx. -xxii. (No change in text.)

xxiii. Section 905.6.2, Interconnection, shall be deleted.

<u>xxiv.</u> In Section 906.1, Where required, Item #1 and in the exception, "and existing" shall be deleted.

xxv. In Section 907.1.1, Construction Documents, "and" shall be inserted before "the International Fire Code" and "and relevant laws ordinances, rules and regulations, as determined by the fire code official" shall be deleted.

<u>xxvi. In Section 907.2, Where required-new buildings and structures, exception #2 shall have "fire code official" deleted and "fire protection subcode official" shall be inserted.</u>

[xviii.] xxvii. Add new section [907.2.1.3] 907.2.1.2 as follows: "[907.2.1.3] 907.2.1.2 Group A-2 Nightclubs. An automatic fire detection system shall be installed throughout all Group A-2 nightclubs with an occupant load of 100 or more. If the alarm is activated by smoke detectors, it shall be activated by either two cross-zoned smoke detectors within a single protected area or a single smoke detector monitored by an alarm verification zone or an approved equivalent method and the smoke detectors shall be of a type designed to reduce the possibility of false notifications based on the conditions present in the area protected. The automatic fire detection system shall be tied to the performance sound system and to the house lights in such a way that activation of the fire detection system mutes the performance sound system and restores the intensity of illumination to that required by 1006.2."

^{*}Requirements as set forth in the IBC/[2006] 2009"

Exception: Automatic fire detection systems are not required in buildings provided with an automatic sprinkler system throughout."

xxviii. In Section 907.2.3, Group E, exception #2.1, "with alarm verification" shall be inserted at the end of the exception and in exception #2.5 "fire code official" shall be deleted and "fire protection subcode official" shall be inserted.

Renumber xix.- xx. as xxix. - xxx. (No change in text.)

[xxi. In Section 907.2.10, Single- and multiple-station smoke alarms, the following shall be inserted at the end of the section: "Household fire alarm systems installed in accordance with NFPA 72 that include smoke alarms, or a combination of smoke detectors and audible notification devices installed as required by this section for smoke alarms, shall be permitted. The household fire alarm system shall provide the same level of smoke detection and alarm as required by this section for smoke alarms in the event the fire alarm panel is removed or the system is not connected to a central station."]

[xxii.] <u>xxxi.</u> In Section [907.3.5] <u>907.4.2.5</u>, Protective covers, "fire code official" shall be deleted and "fire protection subcode official" shall be inserted.

[xxiii.] <u>xxxii.</u> In Section [907.7] <u>907.5.1</u>, Presignal [system] <u>feature</u>, "fire code official" shall be deleted and "fire protection subcode official" shall be inserted.

[xxiv.] $\underline{xxxiii.}$ Section [907.9.1.2] $\underline{907.5.2.3.2}$, Employee work area, is deleted in its entirety.

Renumber xxv. - xxix. as xxxiv. - xxxviii. (No change in text.)

<u>xxxix. In Section 909.11, Power systems, "Chapter 27 of this code"</u> shall be deleted and "the electrical subcode, N.J.A.C. 5:23-3.16" shall be inserted.

Renumber xxx.- xxxi.- as xl.- xli. (No change in text.)

[xxxii. In Section 909.16.3, Control action and priorities, the exception shall have "ICC Electrical Code" deleted and "electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.]

Renumber xxxiii. as xlii. (No change in text.)

[xxxiv.] xliii. In Section 909.19, System acceptance, in the exception, "fire code official" shall be deleted and "fire protection subcode official" shall be inserted.

[xxxv.] <u>xliv.</u> In Section [909.20.6.3, Acceptance and testing] <u>909.20.6.2,</u> <u>Standby power</u>, ["Section 2702"] <u>"Chapter 27"</u> shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.

xlv. In Section 909.20.6.3, Acceptance and testing, "building official" shall be deleted and "fire protection subcode official" shall be inserted.

Renumber xxxvi.-. xli. as xlvi. – li. (No change in text.)

[xlii.] <u>lii.</u> New Section [912.8] <u>912.6</u>, <u>Projection, shall be inserted as follows:</u>

"<u>912.6</u> Projection. Where the fire department connection will otherwise project beyond the property line or into the public way, a flush-type fire department connection shall be provided."

liii. Section 913.4.1, Test outlet valve supervision, shall be deleted.

10. Chapter 10, Means of Egress, shall be amended as follows:

i. The terms "Type A unit," "Type B unit," and "Accessible Unit" shall be deleted and "Adaptable or Accessible Unit" shall be inserted in the following sections: Section 1008.1.1, Exceptions 7 [and 8]; Section [1008.1.4] 1008.1.5, Exceptions 3 and 5; Section [1008.1.6] 1008.1.7, Exception; [and] Section [1008.1.7] 1008.1.8, Exception 3; 1010.6.3, Exception 1; and 1010.6.4, Exception.

ii. – vii. (No change.)

viii. In Section 1007.3, Stairways, Exception #3 shall be deleted.

ix. In Section 1007.4, Elevators, Exception #2 shall be deleted.

<u>x.</u> In Section 1007.5, Platform lifts, in the first sentence, "Section 1109.7, Items 1 through 9" shall be deleted and "the barrier free subcode (N.J.A.C. 5:23-7)" shall be inserted. In the second sentence, ["Section 2702.2.6"] <u>Chapter 27</u> shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.

[ix.] <u>xi.</u> In Section [1008.1.3.5] <u>1008.1.4.5</u>, Security grilles, "In Groups B, F, M, and S" shall be deleted and "horizontal" shall be capitalized.

[x.]xii. In Section [1008.1.4] 1008.1.5, Floor elevation, in Exception 3, "7.75 inches (197 mm)" shall be deleted and "8.25 inches (210 mm)" shall be inserted.

[xi.] <u>xiii.</u> In Section [1008.1.6] <u>1008.1.7</u>, Thresholds, in the exception, "7.75 inches (197 mm)" shall be deleted and "8.25 inches (210 mm)" shall be inserted. <u>In the same exception, "Chapter 11" shall be deleted and "the barrier free subcode (N.J.A.C. 5:23-7)" shall be inserted.</u>

[xii.] <u>xiv.</u> In Section [1008.1.8.1] <u>1008.1.9.1</u>, Hardware, "locks" shall be deleted. In the same section, "Chapter 11" shall be deleted and "the barrier free subcode (N.J.A.C. 5:23-7)" shall be inserted.

[xiii.]xv. Section [1008.1.8.3] 1008.1.9.3, Locks and latches, shall be amended as follows: In Item 2, "Group A having an occupant load of 300 or less" shall be deleted. In the same item, "and in places of religious worship" shall be deleted. In the same section, Item [5] 6 shall be inserted as follows: "[5.] 6. Key operation shall be permitted from a dwelling unit provided that the key cannot be removed from the lock when the door is locked from the side from which egress is made."

[xiv.] <u>xvi.</u> In Section [1008.1.8.6] <u>1008.1.9.7</u>, Delayed egress locks, "E" shall be deleted.

<u>xvii. Section 1008.1.9.8, Electromagnetically locked egress doors, shall</u> be deleted.

[xv.] <u>xviii.</u> In Section [1008.1.9] <u>1008.1.10</u>, Panic and fire exit hardware, the exception shall be deleted in its entirety.

[xvi.] <u>xix.</u> In Section [1009.3] <u>1009.4.2</u>, Stair tread and risers, Exception [4] <u>5</u>, change the maximum riser height from "7.75 inches (197 mm)" to "8.25 inches (210 mm)", change the minimum tread depth from "10 inches (254 mm)" to "9 inches (229 mm)" and change the minimum winder tread depth at the walk line from "10 inches (254 mm)" to "9 inches (229 mm)." In the same section, Exception [5] <u>6</u> shall be deleted.

[xvii. In Section 1009.10, Handrails, Exception 4 and 5 shall be deleted and the following shall be inserted: "4. For occupancies of Group R-3, and within the individual dwelling units and sleeping units of Group R-2, handrails shall not be required for stairways with fewer than three risers."]

xx. In Section 1009.11, Ship ladders, ", in buildings of Group F, H and S from mezzanines not more than 250 square feet (23 m²) in area and which serves not more than 5 occupants" shall be inserted after "occupants" in the first sentence.

[xviii.] <u>xxi.</u> In Section 1011.4, Internally illuminated exit signs, ["Section 2702"] <u>"Chapter 27"</u> shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.

["Section 2702"] <u>xxii.</u> In Section 1011.5.3, Power source, in the last sentence, ["Section 2702"] <u>Chapter 27</u> shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.

Renumber xx. as xxiii. (No change in text.)

[xxi. After Section 1012.3, Handrail graspability, the following text shall be inserted: "Exception: For occupancies of Group R-3, and within individual dwelling units in occupancies of Group R-2, the handgrip portion of handrails shall have a maximum circular cross section of 2.625 inches (67 mm). Other handrail shapes that provide an equivalent grasping surface are permissible."]

xxiv. In Section 1012.4, Continuity, Exception #4 shall be deleted.

[xxii.] xxv. In Section 1013.2, Height, insert new Exception 1 [shall be deleted and the following shall be inserted] as follows: "For occupancies in Group R-3 and within individual dwelling units in occupancies of Group R-2, porches, balconies or raised floor surfaces located more than 30 inches (762 mm) above the floor or grade below shall have guards not less than 36 inches (914 mm) in height. [Open sides of stairs with a total rise of more than 30 inches (762 mm) above the floor or grade below shall have guards not less than 34 inches (864 mm) in height measured vertically from the nosing of the treads.]" In the same section, Exceptions 1 through 4 shall be renumbered as 2 through 5. Additionally, in Exception 3, "34 inches (864mm)" shall be deleted and "30 inches (762 mm) shall be inserted.

[xxiii. In Section 1013.3, Opening limitations, at the end of the second sentence, the following shall be inserted: "except for occupancies of Group R-3, and within individual dwelling units in occupancies of Group R-2."

xxiv. Section 1014.2, Egress through intervening spaces, shall be deleted. Section 1006.2.1 of the 1996 BOCA National Building Code shall be inserted as follows: "Egress through adjoining spaces: Egress from a room or a space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas are

accessory to the area served; are not a high-hazard occupancy; and provide a discernable path of travel to an exit. A maximum of one exit access shall be permitted to pass through a kitchen, storeroom, restroom, closet or similar space provided that a passage through such space is not the only means of access to an exit. An exit access shall not pass through a room subject to locking. Means of egress from dwelling units or sleeping areas shall not lead through other dwelling units or sleeping areas and shall not lead through toilet rooms or bathrooms." Subsection 1014.2.1, Multiple tenants, and Subsection 1014.2.2, Group I-2, shall remain.]

xxvi. Section 1014.2.5, Exit access through suites, shall be deleted.

[xxv. In Section 1014.4.1, "Chapter 11" shall be deleted and "the barrier free subcode (N.J.A.C. 5:23-7)" shall be inserted.]

xxvii. In Section 1015.1, Exits or exit access doorways from spaces, in the exception to Item 1, the first sentence in the exception shall be numbered "1." and "and R-3" shall be deleted. In the same sentence, "20" shall be deleted and "10" shall be inserted. In addition, a new exception shall be inserted as follows: "2. In buildings of Group R-3 occupancy".

<u>xxviii.</u> In Section 1016.1, Travel distance limitations, Exception 3 and 4 shall be deleted. In the same section, in the last paragraph "Where applicable" shall be deleted and "When permitted by Section 1022.1" shall be inserted.

xxix. In Section 1017.2, Aisles in Groups B and M, in the exception, "Chapter 11" shall be deleted and "the barrier free subcode (N.J.A.C. 5:23-7)" shall be inserted.

[xxvi.] <u>xxx.</u> In Table [1017.1] <u>1018.1</u>, Corridor Fire Resistance Rating, under the heading "Occupancy," "U" shall be deleted from the third row. In addition, "Not Permitted" shall be deleted from the fifth row and "1" shall be inserted.

xxxi. In Section 1020.1 Exits from stories, delete Exception 3 and renumber Exceptions 4 and 5 as 3 and 4. In new Exception 3, delete "and R-3". In the same exception, "20" shall be deleted and "10" shall be inserted. Insert new Exception 5 as follows: "5. In buildings of Group R-3 occupancy".

[xxvii.] xxxii. In Table [1019.2] 1021.2, [Buildings] Stories with One Exit, under the heading "Occupancy," "U" shall be deleted from the first row.

[xxviii. In Section 1020.1, Vertical exit enclosures, Exception 1 shall be deleted and the following shall be inserted: "1. In other than Group H and I occupancies, a stairway connecting not more than two floor levels, one of which is the level of exit discharge, which serves an occupant load of not more than 10 or serves four or fewer dwelling units is not required to be enclosed." In the same section, Exception 8 and 9 shall be deleted.]

<u>xxxiii. In Section 1022.1 Enclosures required, in Exception 1 after</u> "occupant load of less than 10" insert "or serves four or fewer dwelling units".

[xxix. Section 1022, Horizontal exits, shall be deleted in its entirety. Section 1019.0 of the 1996 BOCA National Building Code shall be inserted as follows: "Horizontal Exits

- 1022.1 General: Horizontal exits shall be accepted as an approved exit element of a required means of egress. The connection between an area of a building that the horizontal exit serves and the area of refuge as herein required shall be accomplished by protected openings in a fire-resistance rated wall, or by an open-air balcony or bridge.
- 1022.2 Separation: The separation between buildings or areas of refuge connected by a horizontal exit shall be provided by at least a two-hour fire-resistance rated firewall or fire barrier with approved opening protectives complying with Chapter 7 and Table 602.
- 1022.3 Doors: All doors shall swing in the direction of egress travel. Where the horizontal exit serves as an exit from both sides of the wall, there shall be adjacent openings with swinging fire doors opening in opposite directions.

Exception: Horizontal sliding doors complying with Section 1008.1.3.3.

- 1022.4 Area of refuge: The discharge area of a horizontal exit shall be either public areas or spaces occupied by the same tenant, and each such area of refuge shall be adequate to hold the total occupant load of both connected areas. The capacity of areas of refuge shall be computed on a minimum net floor area allowance for each occupant to be accommodated therein, not including areas of stairways, elevators and other shafts or courts, as follows:
 - 1. 30 square feet (3 m[2]) per patient for hospitals and nursing homes.
- 2. Six square feet (0.56 m[2]) per occupant on stories not housing patients confined to a bed or litter in an occupancy in Group 1-2.
 - 3. Six square feet (0.56 m[2]) per occupant in an occupancy in Group 1-3.
 - 4. Three square feet (0.28 m[2]) in all other cases.
- 1022.5 Egress from area of refuge: The path of egress travel from the horizontal exit through the area of refuge to another exit shall be continuously available. In other than occupancies in Group I-3, there shall be at least one exit on each side of the horizontal exit, which is not a horizontal exit. Any area of refuge not having access to an exit, other than a horizontal exit, shall be considered as part of an adjoining area of refuge with such exit. In the area(s) served by the horizontal exit, the length of exit access travel distance to the horizontal exit or another exit shall not exceed the requirements of Section 1016.1."]

<u>xxxiv.</u> In Section 1028.1.1, Bleachers, after "ICC 300", insert "Chapters 2, 3 and 4".

[xxx.] <u>xxxv.</u> At Section [1025.2] <u>1028.2</u>, entitled "Assembly main exit", add the text "other than nightclubs," after "Group A occupancies" at the beginning of the first sentence.

(1) In the exception, ["other than nightclubs" add] after "In assembly occupancies" insert <u>"other than nightclubs"</u> [at the beginning of the exception].

[xxxi.] **xxxvi.** Add new section [1025.2.1] **1028.2.1** as follows:

"[1025.2.1] <u>1028.2.1</u> Group A-2 Nightclubs. Buildings or portions thereof of Group A-2 nightclubs with an occupant load of 100 or more shall have a main entrance capable of

serving as the main exit with an egress capacity for at least one-half the total occupant load. The remaining exits shall be capable of providing two-thirds of the total required exit capacity. Buildings or portions thereof of Group A-2 nightclubs with an occupant load of more than 300 shall have a main entrance capable of serving as the main exit with an egress capacity for at least two-thirds of the total occupant load. The remaining exits shall also be capable of providing two-thirds of the total required exit capacity."

[xxxii. Section 1025.1.1, Bleachers, shall be deleted in its entirety.]

[xxxiii.] <u>xxxvii.</u> Section [1026.1] <u>1029.1</u>, General, shall be amended as follows: In the second sentence, "Basements and" shall be deleted and "sleeping" shall be capitalized. In the same section, Exception 4 shall be deleted its entirety. In Exception 6, "basements or" shall be deleted. In addition, Exception 7 shall be deleted in its entirety.

11. -13. (No change.)

- 14. Chapter 14, Exterior Walls, shall be amended as follows:
- i. [In Section 1403.2, Weather protection, "International Energy Conservation Code" shall be deleted and "the energy subcode, N.J.A.C. 5:23-3.18" shall be inserted.
- ii.] In Section [1405.10.4] **1405.11.4**, "Grounding, "Chapter 27 of this code and the ICC Electrical Code" shall be deleted and "the electrical subcode, N.J.A.C. 5:23-3.16" shall be inserted.
- 15. Chapter 15, Roof Assemblies and Rooftop Structures, shall be amended as follows:

i. <u>In Section 1503.4, Roof drainage, ""International Plumbing Code" shall be deleted and "plumbing subcode, N.J.A.C. 5:23-3.15" shall be inserted.</u>

- <u>ii.</u> In Table 1505.1, Minimum Roof Covering Classification for Types of Construction, Note a shall be deleted in its entirety. In addition, at Note b, "and U [occupancies]" shall be deleted from the first sentence.
- [ii.] <u>iii.</u> In Section 1507.2.8.2, Ice [dam membrane] <u>barrier</u>, "In areas where there has been a history of ice forming along the eaves causing a backup of water," shall be deleted and "In areas where the average daily temperature in January is 25 degrees F (-4 degrees C) or less," shall be inserted.
- iv. In Section 1507.5.4, Ice barrier, "In areas where there has been a history of ice forming along the eaves causing a backup of water," shall be deleted and "In areas where the average daily temperature in January is 25 degrees F (-4 degrees C) or less," shall be inserted.
- v. In Section 1507.6.4, Ice barrier, "In areas where there has been a history of ice forming along the eaves causing a backup of water," shall be deleted and "In areas where the average daily temperature in January is 25 degrees F (-4 degrees C) or less," shall be inserted.
- vi. In Section 1507.7.4, Ice barrier, "or where there has is a possibility of ice forming along the eaves causing a backup of water," shall be deleted.

- vii. In Section 1507.8.4, Ice barrier, "In areas where there has been a history of ice forming along the eaves causing a backup of water," shall be deleted and "In areas where the average daily temperature in January is 25 degrees F (-4 degrees C) or less," shall be inserted.
- viii. In Section 1507.9.4, Ice barrier, "In areas where there has been a history of ice forming along the eaves causing a backup of water," shall be deleted and "In areas where the average daily temperature in January is 25 degrees F (-4 degrees C) or less," shall be inserted.
 - 16. Chapter 16, Structural Design, shall be amended as follows:
 - i. [Section 1603.3, Live loads posted, shall be deleted in its entirety.
- ii. Section 1603.4, Occupancy permits for changed loads, shall be deleted in its entirety.
- iii. New Section 1604.11, General structural integrity, from Section 1604.2 of the 1996 BOCA National Building Code, shall be inserted as follows: "The requirements for general structural integrity shall be in accordance with Section 1.4 of ASCE 7 listed in Chapter 35."
- iv.] New Section 1603.2, Restrictions on loading, from Section 1603.2 of the 2006 International Building Code, shall be inserted as follows: "It shall be unlawful to place, or cause to permit to be placed, on any floor or roof of a building, structure or portion thereof, a load greater than is permitted by these requirements.
- <u>ii.</u> In Table 1607.1, Minimum Uniformly Distributed Live Loads and Minimum Concentrated Live Loads, at Note g, "building official" shall be deleted and "design professional" shall be inserted.

Renumber v. as iii. (No change in text.)

- [vi. In Section 1607.9.1.3, Special occupancies, "or educational occupancies" shall be inserted after "public assembly occupancies."]
- iv. In Section 1607.9.1.4, Group A occupancies, "and Group E" shall be added to the title of the section and after "Group A" insert "and Group E".

Renumber vii. as v. (No change in text.)

- vi. In Section 1611.1, Design rain load, the second sentence shall be deleted and "The design rainfall rates shall be based on the plumbing subcode, N.J.A.C. 5:23-3.15." shall be inserted.
- vii. In Section 1611, Rain loads, Figure 1611.1, "100-year, 1-hour rainfall (inches)" shall be deleted.

Renumber viii.- ix as vii. – viii. (No change in text.)

- 17. Chapter 17, Structural Tests and Special Inspections, shall be amended as follows:
- i. In Section 1701.1, Scope, "shall apply to Class I buildings and smoke control systems in all buildings and "shall be inserted after "chapter."
 - ii. –iv. (No change.)

- v. In Section [1703.7] <u>1703.6</u>, Evaluation and follow-up inspection, "in accordance with N.J.A.C. 5:23-4.26" shall be inserted after the second "assembly."
- vi. Section 1704.1, General, shall be amended as follows: In the first sentence of the first paragraph, "the registered design professional" shall be deleted and "person" shall be inserted. Also, in the first sentence of the first paragraph, "of Class 1 buildings only or any building containing a smoke control system" shall be inserted after "construction." In the second sentence of the second paragraph, "the registered design professional" shall be deleted and "person" shall be inserted.
- vii. Section 1704.1.2, Report requirement, shall be amended as follows: In the second sentence, "building official" shall be deleted and "construction official" shall be inserted and "registered design professional" shall be deleted and "person" shall be inserted. In the same sentence, "in accordance with N.J.A.C 5:23-2.21(c)" shall be inserted after "charge." In the fifth sentence, "building official" shall be deleted and "construction official" shall be inserted and "registered design professional" shall be deleted and "person" shall be inserted. In the last sentence, "building official" shall be deleted and "construction official" shall be inserted.

viii. –ix. (No change.)

x. In Section 1704.5, Masonry construction, "in Seismic Design Category D" shall be inserted after the [second] <u>word</u> "construction." <u>within the text.</u> In the same section, in Exception 2, the reference to "Table [1805.5(1)] <u>1807.1.6.3(1)</u>" shall be deleted.

xi. (No change.)

[xii. Section 1704.9, Pier foundations, shall be deleted in its entirety.

xiii. Table 1704.9, Required Verification and Inspection of Pier Foundations, shall be deleted in its entirely.]

[xiv.] <u>xii.</u> In Section[s 1705.1, General, and] 1705.3, Seismic resistance, "for Seismic Design Category D buildings" shall be inserted after "inspections."

Renumber xv. as _xiii. (No change in text.)

[xvi. In Section 1706.1, Contractor responsibility, in the first sentence, "wind or" shall be deleted. In addition, in the same sentence, "or a wind-" shall be deleted.]

<u>xiv.</u> Section 1706, Special inspection for wind requirements, shall be deleted.

Renumber xvii as xv. (No change in text.)

[xviii. In Section 1707.5, Pier Foundations, in the first sentence, "C," shall be deleted in reference to seismic design categories.]

[xix.] <u>xvi.</u> In Section [1707.8] <u>1707.7</u>, Mechanical and Electrical Components, in items 1, 3, 4 and 5, "C," shall be deleted in reference to seismic design categories.

[xx.] <u>xvii.</u> [Sections 1708.1, Masonry, 1708.1.1, Empirically designed masonry and glass unit masonry in Occupancy Category I, II, or III, 1708.1.2, Empirically designed masonry and glass unit masonry in Occupancy Category IV, 1708.1.3, Engineered masonry in Occupancy Category I, II, or III, 1708.1.4, Engineered masonry in Occupancy Category IV, 1708.3, Reinforcing and pre-stressing steel, and 1708.4,] <u>Section 1708.3</u> Structural steel, shall be deleted [in their entirety].

Renumber xxi. as xviii. (No change in text.)

<u>xix.</u> In Section 1709.1, Contractor responsibility, in the first sentence, "main – wind- or" shall be deleted. In addition, in the same sentence, "or a wind-" shall be deleted.

[xxii.] \underline{xx} . Section [1709] $\underline{1710}$, Structural Observations, shall be deleted in its entirety.

- 18. Chapter 18, Soils and Foundations, shall be amended as follows:
- i. Section 1803.3.1, Scope of investigation, shall be amended as follows: After the first sentence, the following sentence from Section 1802.1 of the 1996 BOCA National Building Code shall be inserted: "There shall be at least one exploratory boring to rock or to an adequate depth below the load-bearing strata for every 2,500 square feet (232.5 mm) of built-over area, and such additional tests as the code official requires."
- <u>ii.</u> In the title of Section [1802.2.6] <u>1803.5.11</u>, "[Seismic Design Category] C" shall be deleted and "[Seismic Design Category] D" shall be inserted. In the first sentence, the reference to "[Seismic Design Category] C" shall be deleted [and "Seismic Design Category D" shall be inserted].
- [ii.] <u>iii.</u> New Section [1802.2.8] <u>1803.5.13</u> from Section 1802.1 of the 1996 BOCA National Building Code shall be inserted as follows: "Building Height: For all buildings that are more than three stories or 40 feet (12,192 mm) in height above the grade plane, the building official shall request soil tests."
- [iii. Section 1802.4.1, Exploratory boring, shall be amended as follows: After the first sentence, the following sentence from Section 1802.1 of the 1996 BOCA National Building Code shall be inserted: "There shall be at least one exploratory boring to rock or to an adequate depth below the load-bearing strata for every 2,500 square feet (232.5 mm) of built-over area, and such additional tests as the code official requires."
- iv. In Section 1802.6, Reports, "soil borings are required" shall be inserted after "Where" in the second sentence.
- v. Section 1805.2, Depth of footings, shall have the following exceptions added:

"Exceptions:

1. Garden-type utility sheds and similar structures that are 100 square feet or less in area, 10 feet or less in height and accessory to structures of Group R-2, R-3 or R-4 and does not contain a water, gas, oil or sewer connection. These structures shall be of sufficient weight to remain in place or shall be anchored to the ground.

- 2. Accessory garden-type utility sheds and similar structures that are greater than 100 square feet, but not more than 200 square feet in area, 10 feet or less in height and accessory to structures of Group R-2, R-3 or R-4 provided the shed is dimensionally stable without the foundation system and does not contain a water, gas, oil or sewer connection. A shed shall be considered dimensionally stable if it is provided with a floor system that is tied to the walls of the structure such that it reacts to loads as a unit. These structures shall be of sufficient weight to remain in place or shall be anchored to the ground."]
- [vi.] <u>iv.</u> In Section [1807.4.3] <u>1805.4.3</u>, Drainage discharge, [shall be] "International Plumbing Code" <u>shall be</u> deleted and "plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted.

Renumber vii. as v. (No change in text.)

[viii. In Section 1808.2.1, Design, in Item 1, "and U" shall be deleted.]

vi. Section 1809.4, Depth and width of footings, shall have the following exceptions added:

"Exceptions:

- 1. Garden-type utility sheds and similar structures that are 100 square feet or less in area, 10 feet or less in height and accessory to structures of Group R-2, R-3 or R-4 and does not contain a water, gas, oil or sewer connection. These structures shall be of sufficient weight to remain in place or shall be anchored to the ground.

 2. Garden-type utility sheds and similar structures that are greater than 100 square feet, but not more than 200 square feet in area, 10 feet or less in height and accessory to structures of Group R-2, R-3 or R-4 provided the shed is dimensionally stable without the foundation system and does not contain a water, gas, oil or sewer connection. A shed shall be considered dimensionally stable if it is provided with a floor system that is tied to the walls of the structure such that it reacts to loads as a unit. These structures shall be of sufficient weight to remain in place or shall be anchored to the ground."
- [ix.] <u>vii.</u> [Section 1808.2.2, General, Item 2, shall be deleted in its entirety and] <u>New Section 1810.3.1.7 from</u> Section 1816.9 of the 1996 BOCA National Building Code shall be inserted as follows: "[1808.2.2.1] Spacing: The minimum center-to-center spacing of piles shall not be less than twice the average diameter of a round pile, nor less than 1 3/4 times the diagonal dimension of a rectangular pile. Where driven to or penetrating into rock, the spacing shall not be less than 24 inches (610 mm). Where receiving principal support at the end from materials other than rock, or through friction resistance, the spacing shall not be less than 30 inches (762 mm) except that for piles having enlarged bases formed either by compacting concrete or driving a pre-cast base, the minimum center-to-center spacing shall be 4 1/2 feet (1,372 mm). The spacing of piles shall be such that the average load on the supporting strata will not exceed the safe load-bearing value of those strata as determined by test borings or other approved methods."
- [x.] <u>viii.</u> In Section [1808.2.8.3.1] <u>1810.3.3.1.3</u>, Load test evaluation **methods**, Item 4 shall be deleted [in its entirety].

- [xi.] <u>ix.</u> In Section [1808.2.23.1] <u>1810.3.13</u>, Seismic [Design Category C] <u>ties</u>, in the exception, <u>"and U"</u> and "subject to approval of the building official" shall be deleted.
- [xii. In Section 1808.2.23.2, Seismic Design Category D, E, or F, the reference to "Seismic Design Categories E and F" shall be deleted. In addition, in Exception 1, "or U" shall be deleted.
- xiii. Section 1809.2.2.1, Materials, shall be deleted in its entirety and Section 1821.2.2 of the 1996 BOCA National Building Code shall be inserted as follows: "All concrete shall have a 28-day specified compressive strength (f') of not less than 4,000 psi (27579 kPa)."]
 - 19. Chapter 23, Wood, shall be amended as follows:
- i. In Section [2303.4.1.2] **2303.4.1.4.1**, Truss design drawings, [the last paragraph beginning with "Where required by one of the following" shall be deleted in its entirety.] "Where required by the registered design professional, the building official, or the statutes of the jurisdiction in which the project is to be constructed," shall be deleted.
- ii. In Section [2303.4.1.3] <u>2303.4.2</u>, Truss placement diagram, [the exception] in the last sentence, "that serve only as a guide for installation and do not deviate from the permit submittal drawings" shall be deleted [in its entirety].
- iii. New Section [2303.4.1.8] <u>2303.4.8</u>, entitled "Truss Identification," shall be inserted as follows: "Each truss shall be labeled or otherwise indelibly marked at the factory with the individual truss number as assigned in the truss layout plan. The indelible marking or label shall be located on the bottom chord of the truss, inside the bearing points. When indelible markings are used, each digit shall be not less than one inch high. When labels are used, the label shall be a minimum of five inches by three inches and shall be affixed to the truss by a truss plate. Labels shall remain affixed to the truss."
- iv. In Table [2306.3.2] **2306.2.1(2)**, Allowable shear for wood structural panel blocked diaphragms utilizing multiple rows of fasteners (<u>high load diaphragms</u>) with framing of Douglas fir larch or southern pine for wind or seismic loading, Note g shall be deleted.
 - v. (No change.)
- 20. Chapters 27, Electrical; 28, Mechanical Systems; and 29, Plumbing, shall be deleted in their entirety.
 - 21. Chapter 30, Elevators and Conveyor Systems, shall be amended as follows:
 - i. (No change.)
- ii. In Section 3001.2, referenced standards, ["with the exception of Sections 7.4 through 7.7, Sections 7.9 through 7.11, and Section 8.6.1.6.5," shall be inserted after "ASME A17.1" and "ASME A18.1," shall be inserted after "ASME A90.1."] "ASME A17.1/CSA B44" shall be deleted and "ASME A17.1 with the exception of Sections 1.1.3 and 1.2, Sections 5.8 and 5.9, Sections 7.4 through 7.7 and

Sections 7.9 through 7.11; ASME A17.1 Appendixes L, N, and P; ASME A18.1" shall be inserted after "shall conform to" in the fourth sentence.

iii. (No change.)

iv. <u>In Section 3001.4, Change in use, "Section 8.7 of ASME A17.1/CSA B44" shall be deleted and "ASME A17.1" shall be inserted.</u>

Renumber iv. as v. (No change in text.)

- vi. <u>In Section 3002.5, Emergency doors, "ASME A17.1/CSA B44"</u> shall be deleted and "ASME A17.1" shall be inserted.
- vii. <u>In Section 3003.2, Fire-fighters' emergency operation, "ASME A17.1/CSA B44" shall be deleted and "ASME A17.1" shall be inserted.</u>

Renumber v.- vii as viii. - x. (No change in text.)

- 22. Chapter 31, Special Construction, shall be amended as follows:
 - i. v. (No change.)
 - [vi. Section 3109.5, Entrapment avoidance, shall be deleted in its entirety.]
- [vii.] vi. Section 3110, Automatic Vehicular Gates, shall be renumbered as 3111 and [Add] new Section 3110.0, "Swimming pools and spas" shall be inserted as follows:
- 3110.0 Swimming pools and spas. Swimming pools and spas shall be constructed in accordance with section 3110.1 through 3110.
- 3110.1 Public swimming pools. Public swimming pools shall be designed and constructed in conformance with ANSI/[NSPI] **APSP**-1 as listed in Chapter 35.
- 3110.2 Public spas. Public spas shall be designed and constructed in conformance with ANSI/[NSPI] **APSP** -2 as listed in Chapter 35.
- 3110.3 Permanently installed residential spas. Permanently installed residential spas shall be designed and constructed in conformance with ANSI/[NSPI] <u>APSP</u> -3 as listed in Chapter 35.
- 3110.4 Above-ground and on-ground residential swimming pools. Above-ground and onground residential swimming pools shall be designed and constructed in conformance with ANSI/[NSPI] **APSP** -4 as listed in Chapter 35.
- 3110.5 Residential in-ground swimming pools. Residential in-ground swimming pools shall be designed and constructed in conformance with ANSI/[NSPI] <u>APSP</u> -5 as listed in Chapter 35.
- 3110.6 Portable spas. Portable spas shall be designed and constructed in conformance with ANSI/[NSPI] <u>APSP</u> -6 as listed in Chapter 35.
- 23. Chapter 32, Encroachments into the Public Rights of Way, shall be amended as follows:
 - i. (No change.)

- ii. In Section 3202.3.4, Pedestrian walkways, ["authority having jurisdiction"] "applicable governing authority" shall be deleted and "the construction official" shall be inserted.
- iii. In Section 3202.4, Temporary encroachments, ["local authority having jurisdiction"] <u>"applicable governing authority"</u> shall be deleted and "municipality" shall be inserted.
 - 24. Chapter 33, Safeguards During Construction, shall be amended as follows:
 - i. iv. (No change.)
- 25. Chapter 34, Existing Structures, shall be [deleted in its entirety] **amended as follows:**
- <u>i. Sections 3401, General; 3402, Definitions; 3403, Additions; 3404, Alteration; 3405, Repairs; 3406, Fire Escapes; 3407, Glass Replacement; 3408, Change of Occupancy; 3409, Historic Buildings; 3410, Moved Structures; and 3411, Accessibility for Existing Buildings, shall be deleted.</u>
- <u>ii. Section 3412, Compliance Alternatives, shall be deleted with the exception of Section 3412.6, Evaluation Process, which shall be amended as follows:</u>
- (1) "in accordance with N.J.A.C. 5:23-6.2(c)4" shall be inserted at the end of the first sentence.
 - 26. Chapter 35, Referenced Standards, shall be amended as follows:
- i. [New subheading "NSPI" shall be inserted as follows: "NSPI National Spa and Pool Institute, 2111 Eisenhower Avenue, Alexandria, VA 22314. In addition, the following NSPI] <u>Under the heading APSP, the following APSP</u> Standards shall be inserted: "ANSI/[NSPI] <u>APSP</u> 1-03, Public Swimming Pools, ANSI/[NSPI] <u>APSP</u>-2-99, Public Spas, ANSI/[NSPI] <u>APSP</u>-3-99, Standard for Permanently Installed Residential Spas, ANSI/[NSPI] <u>APSP</u>-4-[99] <u>07</u>, Standard for Above-Ground/On-Ground Residential Swimming Pools, ANSI/[NSPI] <u>APSP</u>-5-03, Standard for Residential Inground Swimming Pools, and ANSI/[NSPI] <u>APSP</u>-6-99, Standard for Portable Spas."
- ii. Under the subheading "ACI 318-[05] <u>08,</u>" "Section 1708.3" shall be deleted.
- [iii. Under the subheading "ACI 530-05," "Section 1708.1.1," "Section 1708.1.2," and "Section 1708.1.3" shall be deleted.]
- [iv.] <u>iii.</u> Under the subheading "AISC 341-05," "Section [1708.4] <u>1708.3</u>" shall be deleted.
- [v. Under the subheading "ASCE/SEI 5-05," "Section 1708.1.1," "Section 1708.1.2" and "Section 1708. 1.3" shall be deleted.
- vi. Under the subheading "ASTM A615/A A615M-04a," "Section 1708.3" shall be deleted.
- vii. Under the subheading "ASTM A898/A 898M-91(2001)," "Section 1708.3" shall be deleted.]

- [viii.] <u>iv.</u> Under the subheading "AWS D1.1-04," "Section [1708.4] **1708.3**" shall be deleted.
- [ix. Under the subheading "TMS 402-05," "Section 1708.1.1," "Section 1708.1.2" and "Section 1708.1.3" shall be deleted.]
 - 27. The Appendices shall be amended as follows:
 - i. (No change.)
- ii. In Appendix H, at the beginning of the Appendix, the sentence, "The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance," shall be deleted in its entirety.
 - (1) -(2) (No change.)
- [(3) In Appendix H, Section H106.1, Illumination, "ICC Electrical Code" shall be deleted and "electrical subcode" shall be inserted.
- (4) In Appendix H, Section H106.2, Electrical service, "ICC Electrical Code" shall be deleted and "electrical subcode" shall be inserted.]
- iii. Appendix I, Patio Covers, Appendix J, Grading, and Appendix K, [ICC Electrical Code] **Administrative Provisions**, shall be deleted in their entirety.

5:23-3.15 Plumbing subcode

- (a) Rules concerning subcode adopted are as follows:
- 1. Pursuant to authority of P.L. 1975, c.217, as modified by P.L. 1996, c.53, the Commissioner hereby adopts the Model Code of the [National Association of] Plumbing Heating-Cooling Contractors **National Association**, known as "The National Standard Plumbing Code/[2006] **2009**," as the plumbing subcode for New Jersey.
- i. Copies of this code may be obtained from the sponsor at: [NAPHCC] **PHCC-NA**, P.O. Box 6808, Falls Church, VA 22046.
- 2. "The National Standard Plumbing Code/[2006] **2009**," including appendices, may be known and cited as "the plumbing subcode."
- (b) The following pages, chapters, sections or appendices of the plumbing subcode shall be amended as follows:
 - 1. (No change.)
- 2. Chapter 1 of the plumbing subcode, entitled "Definitions," shall be amended as follows:
 - i. –viii. (No change.)

ix. The definition of "Dead End, Potable Water" shall be deleted in its entirety.

x. The definition of "tempered water" shall be [deleted and the following definition shall be inserted: "Tempered Water: Water at a temperature of not less than 90 degrees F and not more than 105 degrees F.] amended as follows: before "temperature" delete "desired" after "temperature" delete "for its intended use, typically" and insert "of."

Renumber x. - xi. as xi. - xii. (No change.)

- 3. Chapter 2 of the plumbing subcode, entitled "General Regulations," shall be amended as follows:
 - i. –iv. (No change.)

v. In Section 2.16, Freezing or overheating, at item 1, "42" shall be inserted in the blank space provided. Additionally, the following shall be inserted: "Combination domestic/fire water service piping shall be installed such that the minimum earth cover is 42 inches or the top of the pipe is 12 inches below the frost depth of the locality, whichever is greater. Limited-area sprinkler systems installed in accordance with Section 903.3.5.1.1 of the building [S]subcode, shall be installed such that the minimum earth cover is 42 inches," In the same section, at Item 2, "24" shall be inserted in the blank space provided. In addition, in the [second] third line of Item 2, "6' shall be inserted in the blank space provided.

vi. –vii. (No change.)

viii. [Section 2.25, at Item 8, insert "and which does not otherwise adversely affect health and safety" at the end of the section.] **In Section 2.23, Dead Ends, subsection b. shall be deleted.**

<u>ix.</u> Section <u>2.24</u>, <u>Toilet facilities for construction workers, shall be deleted in its entirety.</u>

4. Chapter 3 of the plumbing subcode, entitled "Materials," shall be amended as follows:

i. –iii. (No change.)

- iv. <u>In Section 3.1.3, Standards Applicable to Plumbing Materials, in the "Note", the following shall be inserted: APSP The Association of Pool and Spa Professionals, 2110 Eisenhower Avenue, Alexandria, VA 22314, tel: 703-838-0083, fax: 703-549-0493.</u>
- v. In Table 3.1.3, Standards for Approved Plumbing Materials and equipment, Part XI, Practices and Standards for Qualifications, Installation and Testing, insert: "20. Entrapment Avoidance for Swimming Pools, Spas and Hot Tubs: APSP-7 2006."
- [iv.] <u>vi.</u> Section 3.3.8a is amended to add the following phase: "Pressure vessels shall be designed and constructed in accordance with the requirements of <u>the</u> American Society of Mechanical Engineers, (ASME, Rules for Construction of Pressure Vessels, Section VIII/[1998]<u>2004</u>. Any pressure vessel that exceeds any of the following, shall meet the requirements of ASME and shall be stamped ASME: A heat input rating of 200,000 BTU per hour; or a water temperature of 200 degrees Fahrenheit; or a nominal water capacity of 120 gallons or any other thresholds of ASME that apply.

Renumber v.- vi as vii. – viii. (No change in text.)

[vii. In Section 3.11.1 delete "approved by the Authority Having Jurisdiction."

viii. In Section 3.11.2 delete "except as may be otherwise authorized by the Authority Having Jurisdiction."]

ix. (No change.)

- 5.-7. (No change.)
- 8. Chapter 7 of the plumbing subcode, entitled "Plumbing Fixtures, Fixture Fittings and Plumbing Appliances," shall be amended as follows:

i. – iii. (No change.)

iv. Note 1 to Table 7.21.1 is amended to delete the words "For [handicapped] **accessible** requirements, see local, state, or national codes." in the second sentence.

v. (No change.)

- vi. Section 7.23, Safety features for spas and hot tubs, shall be deleted and Section 7.23, Safety features for swimming pools, spas and hot tubs, shall be inserted as follows:
 - "7.23 Safety Features for Swimming Pools, Spas and Hot Tubs.
- [7.23.1 General. Suction outlets shall be designed to provide circulation throughout the pool, spa or hot tub. Single-outlet systems, such as automatic vacuum cleaner systems, or other such multiple suction outlets whether isolated by valves or otherwise, shall be protected against user entrapment.
- 7.23.2 Suction fittings. All pool and spa suction outlets shall have a cover that conforms to ASME A112.19.8M, a 18-inch by 23-inch (457 mm by 584 mm) drain grate or larger, or an approved channel drain system.

Exception: Surface skimmers.

- 7.23.3 Atmospheric vacuum relief system required. Pool and spa single- or multiple-outlet circulation systems shall be equipped with atmospheric vacuum relief should grate covers located therein become missing or broken. This vacuum relief system shall include at least one approved or engineered method of the type specified herein, as follows:
 - 1. Safety vacuum release system conforming to ASME A112.19.17; or
 - 2. Approved gravity drainage system
- 7.23.4 Dual drain separation. Single- or multiple-pump circulation systems shall have a minimum of two suction outlets of the approved type. A minimum horizontal or vertical distance of 3 feet (914 mm) shall separate such outlets. The suction outlets shall be piped so that water is drawn through the outlets simultaneously through a vacuum-relief-protected line to the pump or pumps.
- 7.23.4.1 All swimming pools shall be equipped with main drain suction outlets in the lowest point of the swimming pool floor. The spacing of the main drain suction outlets shall not be greater than 20 feet on center, nor more than 15 feet from each side wall.

Exception: Swimming pools installed in or on one- or two-family dwellings.

7.23.5 Pool cleaner fittings. Where provided, vacuum or pressure cleaner fitting(s) shall be located in an accessible position(s) at least 6 inches (152 mm) and not more than 12 inches (305 mm) below the minimum operational water level or as an attachment to the skimmer(s).]

7.23.1 Entrapment avoidance. Suction outlets shall be designed and installed in accordance with ANSI/APSP-7."

- 9. (No change.)
- 10. Chapter 10 of the plumbing subcode, entitled "Water Supply and Distribution," shall be amended as follows:
 - i. v. (No change.)
- vi. Section 10.5.9a. Exception [(3)] (4) shall be deleted and the following inserted: "[3)] (4) Where fire protection systems supplied from a potable water system include a fire department (Siamese) connection which is located less than 1700 feet from a non-potable water source, the water supply shall be protected by one of the following"
 - (i) Reduced pressure backflow preventer assembly; or

(ii) Reduced pressure detector assembly."

vii. (No change.)

viii. Section 10.15.1, Hot water supply system, shall be amended to add the phrase "Outlet temperature of hot water from lavatory faucets in public <u>use</u> facility restrooms <u>or public toilet rooms.</u> [(such as those in service stations, airports, train and bus terminals, and conventions halls)] shall be provided with a means to limit the maximum temperature to 110 degrees F. [as required in ASHRAE 90.1-1999."]

ix. Insert new section 10.20, Multi-purpose fire sprinkler systems, as

Section P2904, Multi-purpose fire sprinkler systems, of the 2009 International Residential Code shall be considered part of the plumbing subcode.

11. -12. (No change.)

follows:

- 13. Chapter 13 of the plumbing subcode, entitled "Storm Water Drainage," shall be amended as follows:
- i. In Section 13.1.5, Foundation drains, Notes a. through [c] $\underline{\mathbf{d}}$. shall be amended to read "subsoil drains shall be provided in accordance with the building subcode."
 - ii. iii. (No change.)
 - [iv. Section 13.1.10.4, "Equivalent Systems," is deleted.
- v. In Section 13.9.1 after "Authority Having Jurisdiction" insert "in accordance with N.J.A.C. 5:23-3.3."]
 - 14. (No change.)
- 15. Chapter 16 of the plumbing subcode, entitled "Regulations Governing Individual Sewage Disposal Systems for Homes and Other Establishments Where Public Sewer Systems Are Not Available," shall be amended as follows:
 - i. (No change.)
- ii. <u>In Section 16.1.7</u>, Abandoned disposal systems, [shall be retained and amended to read as follows:] <u>insert</u> "When an existing <u>building is being demolished</u> <u>and the existing sewage disposal system is abandoned or an existing sewage disposal system is being abandoned and a connection is being made to the public sewer disposal system or new sewage disposal system, the plumbing subcode official shall ensure that the existing abandoned tank is disconnected from the building, pumped out, and filled with gravel, stones, or soil material.["]</u>

Note: Existing standards of the Department of Environmental Protection and boards of health with respect to individual on-site sewage disposal systems remain in effect."

- 16. 18. (No change.)
- 19. Appendix <u>E of the plumbing subcode, entitled "Special design Plumbing Systems," shall be amended as follows:</u>
- i. Section E.9.3, Rainfall Rates, shall be deleted and the following shall be inserted: "Rainfall rates shall be applied so that the applicable rainfall rates for Burlington and Ocean counties and all counties south, shall be six (6) inches per hours; for Mercer and Monmouth counties and all counties north, the applicable rainfall rate shall be five (5) inches per hour."
 - ii. Section E.9.4. Secondary Roof Drainage, shall be deleted.
- [F, entitled "Requirements of the Authority Having Jurisdiction," shall be amended as follows.

i. In Section F.2, References, the following shall be deleted: "1.7.2 Penalties; 1.9.8 Permit Expiration; 1.10.2 Plan Review Fees; 1.10.3 Plan Review Expiration; 1.10.5 Refunding of Fees; and 1.11.5 Requests for Inspection."]

5:23-3.17 Fire protection subcode

- (a) Rules concerning the subcode adopted are as follows:
- 1. Pursuant to the authority of P.L. 1975, c. 217 as modified by P.L. 1996, c. 53, the Commissioner hereby adopts the following portions of the building, electrical, mechanical and fuel gas subcodes, to the extent delineated in *N.J.A.C.* 5:23-3.4, as the fire protection subcode for New Jersey.
- i. International Building Code/[2006] $\underline{2009}$ of the International Code Council, Inc. (N.J.A.C. 5:23-3.14):
 - (1) (2) (No change.)
- (3) Chapter 7—[Fire Resistance-Rated Construction] <u>Fire and Smoke</u> <u>Protection Features;</u>
 - (4) (7) (No change.)
 - (8) Sections 2603 through [2607] **2613** of Chapter 26--Plastic;
 - (9) (10) (No change.)
- ii. National Electrical Code/[2005] **2008** of the National Fire Protection Association (N.J.A.C. 5:23-3.16).
 - (1) –(5) (No change.)
- iii. International Mechanical Code/[2006] <u>2009</u> of the International Code Council (N.J.A.C. 5:23-3.20):
 - (1) –(7) (No change.)
- iv. International Fuel Gas Code/[2006] **2009** of the International Code Council (N.J.A.C. 5:23-3.22):
 - (1) –(3) (No change.)
 - 2. (No change.)
- (b) (No change.)

5:23-3.18 Energy Subcode

- (a) Rules concerning the subcode adopted are as follows:
- 1. Pursuant to authority of P.L. 1975, c. 217, as modified by P.L. 1996, c. 53, the Commissioner hereby adopts the model code of the International Code Council, known as the International Energy Conservation Code [(IECC/2006)] (IECC/2009), as the energy subcode for New Jersey.
- i. Copies of the [IECC/2006] <u>IECC/2009</u> may be obtained from International Code Council, 4051 West Flossmoor Road, Country Club Hills, Illinois 60478-5795.
 - ii. (No change.)
- (b) The following chapters and sections of the energy subcode are amended as follows:
 - 1. Chapter 1, Administration, shall be amended as follows:

- i. Sections 101.1, Title, 101.2, Scope, and 101.3, Intent, shall be deleted.
- ii. Section 101.4[.1, Existing buildings; Section 101.4.2, Historic buildings; Section 101.4.3, Additions, alterations, renovations or repairs; and Section 101.4.4, Change in Occupancy], **Applicability**, shall be deleted **except for Subsection 101.4.6**, **Mixed Occupancy**.
- iii. [New Section 101.5.3, Residential high-efficiency mechanical tradeoff, shall be inserted as follows: "Residential buildings provided with high efficiency equipment (90 percent AFUE for furnace 85 percent AFUE for boilers and 8.0 HSPF for air source heat pumps) throughout shall be exempt from the requirement to insulate basement walls. Code requirements for other envelope components must meet the component performance approach requirements of Chapter 4."
 - iv. Section 102.3, Maintenance information, shall be deleted.
- v.] Sections [104] <u>103</u>, Construction Documents, [105] <u>104</u>, Inspections, and [106] <u>105</u>, Validity, shall be deleted.
 - iv. Section 106.4, Other laws, shall be deleted.
- <u>v. Sections 107, Fees, 108, Stop Work Order, and 109, Board of Appeals, shall be deleted.</u>
 - 2. Chapter 2, Definitions, shall be amended as follows:
 - i. (No change.)
- ii. The definitions "Addition", <u>"Alteration",</u> "Building", "Code Official", [and] "Dwelling Unit," <u>and "Repair"</u> shall be deleted.
- iii. The definition of "Residential Building" shall [be deleted and the following definition shall be inserted: "Detached one- and two-family dwellings and all other residential buildings three stories or less in height, except buildings of Group R-1."] **shall be amended to add the text "and R-5" after R-3.**
 - 3. Chapter 3, Climate Zones, shall be amended as follows:
- i. [All Sections, Figures and Tables shall be deleted and the following shall be inserted in their place:
- "301.1 General. Climate Zones, in heating degree days (HDD), and exterior design conditions from Table 301.1 shall be used in determining the applicable requirements of Chapter 4. Interior design condition temperatures used for heating and cooling load calculations in all climate zones shall be a maximum of 72°F for heating and minimum of 75°F for cooling."

Table 301.1 - Climate Zones and Design Conditions

	Exterior Design Conditions			
	Heating	Cooling		
County	DDB n1	DDB n1	DWB n2	
Atlantic, Burlington, Camden,	11	90	73	
Cape May, Cumberland, Gloucester,				
Salem				
Essex, Hudson, Mercer, Middlesex,	10	90	73	
Monmouth, Ocean, Union				
Bergen, Hunterdon, Morris, Passaic,	10	89	73	
Somerset				
Sussex, Warren	6	89	72	
	Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Salem Essex, Hudson, Mercer, Middlesex, Monmouth, Ocean, Union Bergen, Hunterdon, Morris, Passaic, Somerset	County DDB n1 Atlantic, Burlington, Camden, 11 Cape May, Cumberland, Gloucester, Salem Essex, Hudson, Mercer, Middlesex, 10 Monmouth, Ocean, Union Bergen, Hunterdon, Morris, Passaic, 10 Somerset	County DDB n1 Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Salem Essex, Hudson, Mercer, Middlesex, Monmouth, Ocean, Union Bergen, Hunterdon, Morris, Passaic, Somerset Cooling DDB n1 DDB n1 10 90 11 90 89	

n1. DDB = Design Dry Bulb, degrees Fahrenheit (annual)

Table 301.1 - Climate Zones and Design Conditions

Exterior Design Conditions Heating Cooling

Climate Zone

(HDD) County DDB n1 DDB n1 DWB n2

n2. DWB = Design Wet Bulb, degrees Fahrenheit (annual)

Section 303.3, Maintenance information, shall be deleted.

- 4. Chapter 4, Residential Energy Efficiency, shall be amended as follows:
 - i. [Section 401.3, Certificate, shall be deleted.
- ii. In Section 402.1.1, Insulation and fenestration criteria, "Table 402.1.1" shall be deleted and "Table 402.1.3" shall be inserted.
- iii. Table 402.1.1 shall be deleted and any references made to it shall become references to Table 402.1.3.
 - iv. Section 402.1.2, R-value computation, shall be deleted.
 - v. Section 402.1.3, U-factor alternative, shall be deleted.
 - vi. Table 402.1.3 shall be deleted and the following table shall be inserted:

		1.5 shall be u				ondir oc mo	or to a.	
Table 402.1.	3 – Assembly	y Thermal Transi	mittance Va	ılue (U-fa	ctor)			
Detached Or	ne- and Two-	Family Dwelling	;s					
	Wall U-factor ¹	Ceiling U-factor ¹	Slab U-factor ²		Floor U-factor	Crawl Space		Wall
Climate Zone						Wall U-factor	U-factor ^{1, 3}	
(HDD)			Unheated	Heated				
4500-4999	0.142	0.031	0.235	0.158	0.049	0.066	0.097	
5000-5499	0.134	0.029	0.218	0.149	0.049	0.059	0.096	
5500-5999	0.127	0.027	0.203	0.141	0.049	0.059	0.095	
6000-6499	0.119	0.025	0.190	0.134	0.049	0.059	0.094	
All other res	idential build	ings three stories	s or less in l	neight, exc	cept buildings o	of Group R-1		
	Wall U-factor ¹	Ceiling U-factor ¹	Slab U-factor ²		Floor U-factor		Basement	Wall
Climate Zone						Wall U-factor	U-factor ^{1, 3}	
(HDD)			Unheated	Heated				
4500-4999	0.211	0.031	0.235	0.158	0.049	0.066	0.097	
5000-5499	0.211	0.029	0.218	0.149	0.049	0.059	0.096	
5500-5999	0.211	0.027	0.203	0.141	0.049	0.059	0.095	
6000-6499	0.203	0.025	0.190	0.134	0.049	0.059	0.094	
Notes:				-				
1. Assembly	includes fen	estration.						
2. Slab insul	ation depth is	2 feet, except th	nat 6000-64	99 is 4 fee	et.			
3. The need for basement wall insulation shall be waived when the requirements of Section 101.5.3 are								
met.								

- vii. In Section 402.1.4, Total UA alternative, "alternative" shall be deleted from the title. In addition, in the first sentence, "with Table 402.1.1" shall be deleted.
 - viii. In Section 402.2.3, Mass walls, the exception shall be deleted.
- ix. In Section 402.2.7, Slab-on-grade floors, the reference to "Table 402.1.1" in the first and third sentence shall be deleted and "Table 402.1.3" shall be inserted.
- x. In Section 402.2.10, Thermally isolated sunroom insulation, "zones 1 through 4" shall be deleted and "HDD 4500-5499" shall be inserted. In addition, "zones 5 through

- 8" shall be deleted and "HDD 5500-6499" shall be inserted.
- xi. In Section 402.3.5, Thermally isolated sunroom U-factor, "For Zone 4 through 8, the" shall be deleted and "The" shall be inserted.
 - xii.] Section 402.3.6, Replacement fenestration, shall be deleted.
- [xiii. In Section 402.4.3, Recessed lighting, in Item #3 "and labeled for" shall be inserted after "inside."
- xiv. In Section 402.5, Moisture control (Mandatory), Exception 2, "Zones 1 through 4" shall be deleted and "HDD 4500-5499" shall be inserted.
- xv. Section 402.6, Maximum fenestration U-factor and SHGC (Mandatory), shall be deleted.
- xvi. In Section 404.5.2, Residence specifications, the reference to "Table 402.1.1" shall be deleted and "Table 402.1.3" shall be inserted in its place.
- xvii. In Table 404.5.2(1), Specifications for the Standard Reference and Proposed Designs," under the heading "Glazing," reference to "Table 402.1.1" shall be deleted in "U-factor" and "SHGC" and "Table 402.1.3" shall be inserted in both places.]
- <u>ii. In Section 403.7, Systems serving multiple dwelling units (Mandatory), delete "Sections 503 and 504" and replace with "Chapters 6 and 7 of the 2007 ASHRAE/IESNA Standard 90.1".</u>
 - 5. Chapter 5, Commercial Energy Efficiency, shall be amended as follows:
 - i. [All Sections and Tables shall be deleted and the following shall be inserted:
- "501.1 Scope. Commercial buildings shall meet the requirements of ASHRAE/IESNA Standard 90.1-2004 (ASHRAE/2004), Energy Standard for Buildings Except for Low-Rise Residential Buildings.] At Section 501.1, Scope, the text shall be deleted and replaced with the following: "The requirements contained in this chapter shall be applicable to commercial buildings, or portions thereof. These commercial buildings shall meet the ASHRAE/IESNA Standard 90.1/2007, Energy Standard for Buildings Except for Low-Rise Residential Buildings."
- <u>ii. Section 501.2, Application, shall be deleted and replaced with "501.2</u> Amendments. The following amendments shall apply to [ASHRAE/2004] <u>ASHRAE/2007</u>:
 - 1. -2. (No change.)
- [3. Table B-1, US Climate Zones, shall be amended so that New Jersey is Zone 4A, except that Bergen, Hunterdon, Morris, Passaic, Somerset, Sussex and Warren Counties shall be Zone 5A.]"
- <u>iii. Section 502, Building Envelope Requirements, Section 503, Building Mechanical Systems, Section 504, Service Water Heating, Section 505, Electrical Power and Lighting Systems, and Section 506, Total Building Performance, shall be deleted in their entirety.</u>
 - 6. (No change.)
- 5:23-3.20 Mechanical subcode
 - (a) Rules concerning the subcode adopted are as follows:
- 1. Pursuant to authority of P.L. 1975, c. 217, the Commissioner hereby adopts the model code of the International Code Council, Inc., known as the International Mechanical [Code/2006] <u>Code/2009</u>. This code is hereby adopted by reference as the Mechanical Subcode for the State of New Jersey subject to the modifications in (b) below.

- i. (No change.)
- ii. The International Mechanical [Code/2006] <u>Code/2009</u> may be known and cited as the "mechanical subcode."
- 2. Any references to the International Plumbing Code, [ICC Electrical Code,] the International Energy Conservation Code or the International Existing Building Code listed in Chapter 15 shall be considered a reference to the appropriate [adopted] plumbing, [electrical,] or energy subcode in N.J.A.C. 5:23-3 or <u>the</u> rehabilitation subcode in N.J.A.C. 5:23-6.
 - 3. (No change.)
- (b) The following chapters, sections or pages of the International Mechanical Code/2006 shall be amended as follows:
 - 1. Chapter 1, **Scope and** Administration, shall be amended as follows:
- 2. Chapter 2 of the mechanical subcode, entitled "Definitions," is amended as follows:
- i. In Section 201.3, <u>Terms defined in other codes</u>, delete "[ICC Electrical Code and] International Plumbing Code," and insert "[electrical subcode and] plumbing subcode."
- ii. The definition of the term "alteration" is deleted [and substitute the definition found in N.J.A.C. 5:23-1.4].
 - iii. (No change.)
- iv. The definition of the term "building" is deleted [and substitute the definition found in N.J.A.C. 5:23-1.4].
 - v. (No change.)
- vi. The definition of the term "code official" is deleted[, and the following language is substituted: "For the purpose of the mechanical subcode, the term "code official" shall mean the appropriate subcode official as designated in N.J.A.C. 5:23-3.4]."
- 3. Chapter 3 of the mechanical subcode, entitled "General Regulations," shall be amended as follows:
- i. Section 301.1, Scope, is amended to delete the words "in accordance with Section 101.2."
- ii. Section 301.4, **Listed and labeled**, is amended to delete the words "in accordance with Section 105."
- iii. <u>In Section 301.8, Plumbing connections, delete "International Plumbing Code" and insert "plumbing subcode (N.J.A.C. 5:23-3.15)" in its place.</u>
 - iv. (No change.)
- [iii.] v. Add new section 301.16, Safety devices and Controls, as follows: [301.16 Safety devices and controls.] Oil burners, other than oil stoves with integral tanks, shall be provided with means for manually stopping the flow of oil to the burner. Such device or devices shall be placed in a readily accessible location a minimum of 10 feet from the burner. For electrically driven equipment, an identified switch in the burner supply circuit shall be provided at the entrance to the room or area where the appliance is located or, for equipment located in basements, the switch is required to be

located at the top of stairs leading to the basement. An identifiable valve in the oil supply line, operable from a location a minimum of 10 feet from the burner shall be used for other than electrically driven or controlled equipment.

Renumber v. as vi. (No change in text.)

- [vi.] <u>vii.</u> Section 307.2.1, <u>Condensate disposal</u>, is amended to add the following after the word "disposal" on line 3: "in accordance with the [adopted] plumbing subcode." <u>In addition, the second sentence shall be deleted.</u>
 - [vii.] <u>viii.</u> Section 307.2.2, <u>Drain pipe materials and sizes</u>, is deleted.
 - [viii.] **ix.** Section 309, **Temperature control**, is deleted.
- 4. Chapter 5 of the mechanical subcode, entitled "Exhaust Systems," shall be amended as follows:
- i. Section 503.1 General, is amended to replace the second sentence with the following: "The type and wiring methods for motors in areas that contain flammable vapors or dusts shall be in accordance with the electrical subcode."
- ii. <u>In Section 504.8, Common exhaust systems for clothes dryers located in multistory structures, item #7 is amended to add ", if provided," after the word "and".</u>
- [ii.] <u>iii.</u> Section 512.1, <u>General</u>, is amended to add a sentence as follows: "This section shall not apply to radon construction techniques covered by subchapter 10 of the Uniform Construction Code."
- [iii. In Section 513.11, Power systems, in the third and seventh sentences, "ICC Electrical Code" shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.
- iv. 513.12.1 is amended to delete the wording in its entirety and substitute the following: "Wiring. All wiring shall be in accordance with the electrical subcode."]
- 5. Chapter 6 of the mechanical subcode, entitled "Duct Systems," is amended as follows:
- i. Section 602.2.1, **Materials in plenums**, is amended to modify Exception 3 to read: "This section shall not apply to materials exposed within plenums in one-and two-family dwellings. Wire exposed in plenums of one-and two-family dwellings shall conform to the requirements of the electrical subcode."
- ii. Section 602.2.1.1, **Wiring**, is deleted in its entirety and substitute the following language: "Wiring, cable and raceways installed in a plenum shall be listed and installed in accordance with the electrical subcode."
- [iii. Section 602.2.1.4 is deleted in its entirety and substitute the following language: "Combustible electrical equipment exposed within a plenum shall be listed and labeled and shall be installed in accordance with the requirements of the electrical subcode."]
 - 6. (No change.)
- 7. Chapter 10 of the mechanical subcode, entitled "Boilers, Water Heaters and Pressure Vessels," shall be amended as follows:

- i. Section 1001.1, Scope, is amended to replace the words "installation, alteration, and repair of boilers," with the words "installation and alteration of boilers."
- [ii. Section 1003.1, General, shall be amended to add the following phrase: "Pressure vessels shall be designed and constructed in accordance with the requirements of ASME "Rules for Construction of Pressure Vessels, Section VIII/2004".]
- 8. Chapter 11 of the mechanical subcode, entitled "Refrigeration," is amended as follows:
 - i. Section 1101.1, Scope, the word "repair" shall be deleted.
 - ii. Section 1102.2.2, Purity, is deleted.
- <u>iii. Add new Section 1103.1.1, Acceptable refrigerants, as follows:</u>
 Only refrigerants listed by the US Environmental Protection Agency (EPA),
 pursuant to the Significant New Alternatives Program (SNAP) under section 612 of
 the Clean Air Act Amendments, as acceptable substitutes for the particular use shall
 be permitted.
 - [ii.] iv. Section 1109, Periodic testing, is deleted.
- 9. Chapter 13 of the mechanical subcode, entitled "Fuel Oil Piping And Storage," is amended as follows:
- i. Section 1301.2, Storage and piping systems, is amended to add the following sentence: "Where the tank is of a size and type that is subject to the Department of Environmental Protection rules for the installation of Underground Storage Tanks at N.J.A.C. 7:14B, those rules shall apply."
- 10. Chapter 15 of the mechanical subcode, entitled "Referenced Standards," shall be amended as follows:
 - i. Under the heading "ICC," amend the following titles:
 - (1) [Delete "ICC EC--06, ICC Electrical Code."
 - (2)] Delete "IEBC--06, International Existing Building Code."
 - [(3)] (2) Delete "IPC--06, International Plumbing Code."
 - 11. 12. (No change.)
 - (c) (No change.)
- 5:23-3.21 One- and two-family dwelling subcode
- (a) Rules concerning the subcode are adopted as follows:
- 1. Pursuant to authority of P.L. 1975, c. 217, as modified by P.L. 1996, c.53, the Commissioner hereby adopts the model code of the International Code Council, [2006] **2009** International Residential Code known as the ["IRC/2006"] "IRC/2009" as the one-and two-family dwelling subcode in New Jersey subject to the modifications stated in (c) below.
 - i. (No change.)
- ii. The [IRC/2006] <u>IRC/2009</u> may be known and cited as the one-and two-family dwelling subcode.

- (b) (No change.)
- (c) The following chapters or sections of the [IRC/2006] <u>IRC/2009</u> shall be modified as follows:
- 1. Chapter 1, [General] **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:
 - i. The definition of "Addition[s]" shall be deleted.
 - ii. iv. (No change.)

v. The definition of "Attic, habitable" shall be deleted.

Renumber v.- vii as vi – viii (no change in text.)

[viii.] <u>ix.</u> The definition of "Building Official" shall be deleted [and the definition at N.J.A.C. 5:23-3.14(b)2vi shall be inserted].

<u>x. In the definition of "Dwelling Unit," "living as a single housekeeping unit" shall be inserted after "persons."</u>

Renumber ix.- xvii. as xi. – xix. (No change.)

- 3. Chapter 3, Building Planning, shall be amended as follows:
 - i. iii. (No change.)
 - iv. Section R301.2.1.5, Topographic wind effects, shall be deleted.

Renumber iv. as v. (No change in text.)

- vi. In Table R301.5, Minimum Uniformly Distributed Live Loads, delete "Balconies (exterior) and" from the fourth row. Insert a new row below "Decks" with "Exterior Balconies" in the "Use" column and "60" in the "Live Load" column.
- vii. In Section R302.2, Townhouses, in the second sentence of the exception, "Chapters 34 through 43" shall be deleted and " the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.
- viii. In Exception 1 of R302.3, Two-family dwellings, "13R, or 13D" shall be inserted after "NFPA 13."
- ix. Table R302.6, Dwelling/Garage Separation, shall be amended as follows: In the column entitled "Material" and the rows entitled "From all habitable rooms above the garage" and "Structure(s) supporting floor/ceiling assemblies used for separation required by this section" the text shall be deleted and "constructed with not less than a one-hour fire resistance rating (see N.J.U.C.C. FTO-13)" shall be inserted.
- x. In Section 302.13, Combustible Insulation Clearance, "Section N1102.4.5" shall be deleted and "the energy subcode (N.J.A.C. 5:23-3.18)" shall be inserted.

Renumber v.- vi. as xi.-xii (No change in text.)

[vii.] <u>xiii.</u> In Section R307.1, Space required, "Figure R307.1, and in accordance with the requirements of Section P2705.1" shall be deleted and "Figure 7.3.2 of the plumbing subcode, entitled ["] Minimum Fixture Clearances?" shall be inserted. In addition, Figure R307.1 shall be deleted in its entirety.

[viii. Section R309.2, Separation required, shall be deleted and the following shall be inserted: "Private garages located beneath rooms shall have walls, partitions, floors and ceilings separating the garage from the adjacent interior spaces

constructed with not less than a one-hour fire resistance rating (see N.J.U.C.C. FTO-13). Attached private garages shall be completely separated from the adjacent interior spaces and the attic area by means of 1/2-inch gypsum board or equivalent applied to the garage side."]

[ix.]xiv. In Section R310.1, Emergency escape and rescue required, "Basements, habitable attics and" shall be deleted. The sentence shall start with "Every." In addition, [in the third sentence, "but shall not be required in adjoining areas of the basement" shall be deleted. Finally,] the exception shall be deleted in its entirety.

[x.]xv. In Section [R311.4.3, Landings at doors,] R311.3.1, Floor elevations at the required egress doors, in the Exception [2 and Exception 3], "7 3/4 inches (196 mm)" shall be deleted and "8 1/4 inches (210 mm)" shall be inserted. Also, in Section R311.3.2, Floor elevations for other exterior doors, "7 3/4 inches (196 mm)" shall be deleted and "8 1/4 inches (210 mm)" shall be inserted.

[xi.]xvi. In Section [R311.5.3.1] R311.7.4.1, Riser height, in the first sentence, "7 3/4 inches (196 mm)" shall be deleted and "8 1/4 inches (210 mm)" shall be inserted.

[xii.] <u>xvii.</u> In Section [311.5.3.2] <u>R311.7.4.2</u>, Tread depth, in the first sentence <u>of the first paragraph</u>, "10 inches (254 mm)" shall be deleted and "9 inches (229 mm)" shall be inserted. In addition, in the [fourth] <u>first</u> sentence <u>of the second paragraph</u>, "10 inches (254 mm)" shall be deleted and "9 inches (229 mm)" shall be inserted.

[xiii.] **xviii.** In Section [R311.5.6.1] **R311.7.7.1**, Height, "34 inches (864 mm)" shall be deleted and "30 inches (762 mm)" shall be inserted.

[xiv. In Section 311.5.6.3 Handrail grip size, Item 1 shall be deleted in its entirety and Section R315.2 of the 2000 edition of the International Residential Code shall be inserted as follows:

"Type 1. The handgrip portion of Type 1 handrails shall have a circular cross section of 1 1/4 inches (32 mm) minimum to 2 5/8 inches (67 mm) maximum. Other handrail shapes that provide an equivalent grasping surface are permissible. Edges shall have a minimum radius of 1/8 inch (3.2 mm)."]

Renumber xv. as xix. (No change in text.)

<u>xx. In Section R311.8.3.1, Height, "34 inches (864 mm)" shall be</u> deleted and "30 inches (762 mm)" shall be inserted.

<u>xxi. In Section R312.2, Height, in both exceptions, "34 inches (864 mm)" shall be deleted and "30 inches (762 mm)" shall be inserted.</u>

<u>xxii. In Section R313.1, Townhouse automatic fire sprinkler system, insert "Effective January 1, 2012" at the beginning of the sentence. In the same section, the exception shall be deleted.</u>

<u>xxiii. In Section R313.1.1, Design and installation, "or NFPA 13D"</u> shall be inserted after "Section P2904".

xxiv. In Section R313.2, One- and two-family dwellings automatic fire systems, "2011" shall be deleted and "2012" shall be inserted. In the same section, the exception shall be deleted.

[xvi.] <u>xxv.</u> Section [R313.2.1] <u>R314.3.1</u>, Alterations, repairs and additions, shall be deleted in its entirety.

[xvii.] <u>xxvi.</u> In Section [R313.3] <u>R314.4</u>, Power source, ["Smoke alarms shall be permitted to be battery operated when installed in buildings without commercial

power or in buildings that undergo alterations, repairs, or additions regulated by Section R313.1.1"] **both exceptions** shall be deleted.

[xviii. In Section R311.6.3.1, Height, "34 inches (864 mm)" shall be deleted and "30 inches (762 mm)" shall be inserted.

xix. In Section R317.1, Dwelling unit separation, in Exception 1, "13R, or 13D" shall be inserted after "NFPA 13."

xx. In Section R317.2, Townhouses, in the second sentence of the exception, "Chapters 33 through 42" shall be deleted and " the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.

xxi. In Section R318.1, Moisture control, in Exception 3, "in climate zones 1 through 4 in Table N1101.2" shall be deleted and "HDD 4500-4999 and HDD 5000-5499 in accordance with the energy subcode (N.J.A.C. 5:23-3.18) shall be inserted.]

<u>xxvii.</u> Section 315.2, Where required in existing dwellings, shall be deleted.

[xxii.] <u>xxviii.</u> Section [R321.1] <u>R319</u>, Site address, shall be deleted in its entirety.

[xxiii.] <u>xxix.</u> Section [R322] <u>R320</u>, Accessibility, shall be deleted in its entirety.

[xxiv.] <u>xxx.</u> Section [R323] <u>R321</u>, Elevators and platform lifts, shall be deleted in its entirety.

[xxv.] \underline{xxxi} . In Section [R324.1] $\underline{R322.1}$, General, "as established by Table R301.2(1)" shall be deleted. [Additionally, in the exception "as established by Table R301.2(1)" shall be deleted.]

[xxvi.]xxxii. In Section [R324.1.5] <u>R322.1.6.</u>, Protection of mechanical and electrical systems, the second sentence shall be deleted in its entirety.

[xxvii.] <u>xxxiii.</u> In Section [R324.1.6] <u>R322.1.7</u>, Protection of water supply and sanitary sewage systems, in the first and second sentences, "and replacement" shall be deleted. Also, in the second sentence, "the plumbing provisions of this code and Chapter 3 of the International Private Sewage Disposal Code" shall be deleted and "the plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted.

[xxviii.] <u>xxxiv.</u> In Section [R324.1.8] <u>R322.1.9</u>, Manufactured [housing] <u>homes</u>, in the first sentence, "or replacement" and "and the anchor and tie-down requirements of Section AE604 and AE605 of Appendix E shall apply" shall be deleted.

[xxix.] <u>xxxv.</u> Section [R324.3.6] <u>R322.3.6</u>, Construction Documents, shall be deleted in its entirety.

xxxvi. Section R323, Storm Shelters, shall be deleted.

[xxx. New Section R325 entitled, "Carbon Monoxide Alarms," shall be inserted as follows:

"R325 Carbon monoxide alarms. Single station carbon monoxide alarms shall be installed and maintained in full operating condition in the immediate vicinity of each sleeping area in any dwelling unit if the dwelling unit contains a fuel-burning appliance or has an attached garage. An "open parking structure," as defined in the building subcode, shall not be deemed to be an attached garage.

Carbon monoxide alarms shall be manufactured, listed and labeled in accordance with UL 2034 and shall be installed in accordance with the requirements of this section and NFPA 720. Carbon monoxide alarms shall be battery operated, hardwired or of the plug-in type."]

4. Chapter 4, Foundations, shall be amended as follows:

<u>i. In Section R401.1, Application, "as established by Table R301.2 (1)"</u> <u>shall be deleted.</u>

Renumber i. as ii. (No change in text.)

[ii.] <u>iii.</u> In Section $\underline{\mathbf{R}}$ 403.1.4.1, Frost protection, the exceptions shall be deleted and the following shall be inserted [in its place]:

Exception: Free_standing buildings meeting all of the following conditions shall not be required to be protected:

- 1. Buildings and other structures that represent a low hazard to human life in the event of failure, including, but not limited to, agricultural buildings, temporary buildings and minor storage facilities.
- 2. Area of 600 square feet (56 m²) or less for light<u>-</u>framed construction or 400 square feet (37 m²) or less for other than light-framed construction; and
 - 3. Eave height of 10 feet (3048 mm) or less.

Renumber iii. as iv. (No change in text.)

- [iv. In Section R404.1, Concrete and masonry foundation walls, the second sentence shall be deleted. Also, the second paragraph shall be deleted in its entirely. Tables R404.1(1), Top Reactions and Prescriptive Support for Foundation Walls, R404.1(2), Maximum Plate Anchor-Bolt Spacing for Supporting Foundation Walls, and R404.1(3), Maximum Aspect Ratio, L/W for Unbalanced Foundations, shall be deleted in their entirely.
- v. In Section R404.4, Insulating concrete form foundation walls, the second sentence shall be deleted.]

v. In Section 404.2.5, Drainage and dampproofing, delete "Sections R405 and R406, respectively." and insert "Section R406."

vi. In Table R404.1.1(1), Note B; Table R404.1.1(2), Note D; Table R404.1.1(3), Note D; Table R404.1.1(4), Note D; [Table R404.1.1(5), Note A; Table R404.4(1), Note F; Table R404.4(2), Note G; Table R404.4(3), Note G; Table R404.4(4), Note H; and Table R404.4(5), Note H,] Table R404.1.2(2), Note A; Table R404.1.2(3), Note A; Table R404.1.2(4), Note A; Table R404.1.2(5), Note A; Table R404.1.2(6), Note A; Table R404.1.2(7), Note A; and Table R404.1.2(8), Note A, "Table R405.1" shall be deleted and "Table R406.1" shall be inserted.

vii. Sections R405, Foundation Drainage, with the exception of Table R405.1, which shall be renumbered as "Table R406.1", and R406, Foundation Waterproofing and Dampproofing, shall be deleted and the text of Section 1807, Dampproofing and Waterproofing from the International Building Code (IBC)/2006 shall be inserted as follows:

"R406.1 Where required. Walls or portions thereof that retain earth and enclose interior spaces and floors below grade shall be waterproofed and dampproofed in accordance with this section, with the exception of those spaces containing groups other than residential and institutional where such omission is not detrimental to the building or occupancy.

R406.1.1 Story above grade. Where a basement is considered a story above grade and the finished ground level adjacent to the basement wall is below the basement floor elevation for 25 percent or more of the perimeter, the floor and walls shall be dampproofed in accordance with Section R406.2 and a foundation drain shall be

installed in accordance with Section R406.4.1. The foundation drain shall be installed around the portion of the perimeter where the basement floor is below ground level. The provisions of Sections R406.3 and R406.4.1 shall not apply in this case.

R406.1.2 Underfloor space. The finished ground level of an underfloor space such as a crawl space shall not be located below the bottom of the footings. Where there is evidence that the ground water table rises to within six inches (152 mm) of the ground level at the outside building perimeter or where there is evidence that the surface water does not readily drain from the building site, the ground level of the underfloor space shall be as high as the outside finished ground level, unless an approved drainage system is provided. The provisions of Sections R406.2, R406.3 and R406.4 shall not apply in this case.

R406.1.2.1 Floor hazard areas. For buildings and structures in flood hazard areas as established in Section R327, the finished ground level of an underfloor space such as a crawl space shall be equal to or higher than the outside finished ground level.

Exception: Under-floor spaces that meet the requirements of FEMA/FIA-TB-11.

R406.1.3 Groundwater control. Where the groundwater table is lowered and maintained at an elevation not less than 6 inches (152 mm) below the bottom of the lowest floor, the floor and walls shall be dampproofed in accordance with Section R406.2. The design of the system to lower the groundwater table shall be based on accepted principles of engineering that shall consider, but not necessarily be limited to, permeability of the soil, rate at which water enters the drainage system, rated capacity of pumps, head against which pumps are to pump; and the rated capacity of the disposal area of the system.

R406.2 Dampproofing required. Where hydrostatic pressure will not occur, floors and walls for other than wood foundation systems shall be dampproofed in accordance with this section. Wood foundation systems shall be constructed in accordance with AFPA TR7.

R406.2.1 Floors. Dampproofing materials for floors shall be installed between the floor and the base course required by Section R406.4.1, except where a separate floor is provided above a concrete slab.

Where installed beneath the slab, dampproofing shall consist of not less than six-mil (0.006 inch; 0.152 mm) polyethylene with joints lapped not less than six inches (152 mm), or other approved methods or materials. Where permitted to be installed on top of the slab, dampproofing shall consist of mopped-on bitumen, not less than four-mil (0.004 inch; 0.102 mm) polyethylene, or other approved methods or materials. Joints in the membrane shall be lapped and sealed in accordance with the manufacturer's installation instructions.

R406.2.2 Walls. Dampproofing materials for walls shall be installed on the exterior surface of the wall, and shall extend from the top of the footing to above ground level.

Dampproofing shall consist of a bituminous material, three pounds per square yard $(16N/m^2)$ of acrylic modified cement, 1/8-inch (3.2 mm) coat of surface-bonding mortar complying with ASTM C 887, any of the materials permitted for waterproofing by Section R406.3.2, or other approved methods or materials.

R406.2.2.1 Surface preparation of walls. Prior to application of

dampproofing materials on concrete walls, holes and recesses resulting from the removal of form ties shall be sealed with a bituminous material or other approved methods or materials. Unit masonry walls shall be parged on the exterior surface below ground level with not less than 3/8 inch (9.5 mm) of Portland cement mortar. The parging shall be coved at the footing.

Exception: Parging of unit masonry walls is not required where a material is approved for direct application to the masonry.

R406.3 Waterproofing required. Where the groundwater investigation indicates that a hydrostatic pressure condition exists, and the design does not include a groundwater control system as described in Section R406.1.3, walls and floors shall be waterproofed in accordance with this section.

R406.3.1 Floors. Floors required to be waterproofed shall be of concrete, designed and constructed to withstand the hydrostatic pressures to which the floors will be subjected.

Waterproofing shall be accomplished by placing a membrane of rubberized asphalt, butyl rubber, or not less than six-mil polyvinyl chloride with joints lapped not less than six inches (152 mm) or other approved materials under the slab. Joints in the membrane shall be lapped and sealed in accordance with the manufacturer's installation instructions.

R406.3.2 Walls. Walls required to be waterproofed shall be of concrete or masonry and shall be designed and constructed to withstand the hydrostatic pressures and other lateral loads to which the walls will be subjected.

Waterproofing shall be applied from the bottom of the wall to not less than 12 inches (305 mm) above the maximum elevation of the ground water table. The remainder of the wall shall be dampproofed in accordance with Section R406.2.2. Waterproofing shall consist of two-ply hot-mopped felts, not less than six-mil (0.006 inch; 0.152 mm) polyvinyl chloride, 40-mil (0.040 inch; 1.02 mm) polymer-modified asphalt, six-mil (0.006 inch; 0.152 mm) polyethylene or other approved methods or materials capable of bridging nonstructural cracks. Joints in the membrane shall be lapped and sealed in accordance with the manufacturer's installation instructions.

R406.3.2.1 Surface preparation of walls. Prior to the application of waterproofing materials on concrete or masonry walls, the walls shall be prepared in accordance with Section R406.2.2.1.

R406.3.3 Joints and penetrations. Joints in walls and floors, joints between the wall and floor, and penetrations of the wall and floor shall be made watertight utilizing approved methods and materials.

R406.4 Subsoil drainage system. Where a hydrostatic pressure condition does not exist, dampproofing shall be provided and a base shall be installed under the floor and a drain installed around the foundation perimeter. A subsoil drainage system designed and constructed in accordance with Section R406.1.3 shall be deemed adequate for lowering the groundwater table.

R406.4.1 Floor base course. Floors of basements, except as provided for in Section R406.1.1, shall be placed over a floor base course not less than four inches (102 mm) in thickness that consists of gravel or crushed stone containing not more than 10 percent of material that passes through a No. 4 (4.75 mm) sieve.

Exception: Where a site is located in well-drained gravel or sand/gravel mixture soils, a dedicated drainage system is not required.

R406.4.2 Foundation drain. A drain shall be placed around the perimeter of a foundation that consists of gravel or crushed stone containing not more than 10 percent material that passes through a No. 4 (4.75 mm) sieve. The drain shall extend a minimum of 12 inches (305 mm) beyond the outside edge of the footing. The thickness shall be such that the bottom of the drain is not higher than the bottom of the base under the floor, and that the top of the drain is not less than six inches (152 mm) above the top of the footing. The top of the drain shall be covered with an approved filter membrane material. Where a drain tile or perforated pipe is used, the invert of the pipe or tile shall not be higher than the floor elevation. The top of joints or the top of perforations shall be protected with an approved filter membrane material. The pipe or tile shall be placed on not less than two inches (51 mm) of gravel or crushed stone complying with Section R406.4 and shall be covered with not less than six inches (152 mm) of the same material.

R406.4.3 Drainage discharge. The floor base and foundation perimeter drain shall discharge by gravity or mechanical means into an approved drainage system that complies with the plumbing subcode.

Exception: Where a site is located in well-drained gravel or sand/gravel mixture soils, a dedicated drainage system is not required.

R406.4.4 Precast concrete foundations. Precast concrete walls that retain earth and enclose habitable or useable space located below grade that rest on crushed stone footings shall have a perforated drain pipe installed below the base of the wall on either the interior or the exterior side of the wall, at least one foot (305 mm) beyond the edged of the wall. If the exterior drainage pipe is used, an approved filter membrane material shall cover the pipe. The drainage system shall discharge into an approved drainage system that complies with the plumbing subcode."

viii. (No change.)

ix. In Section R408.3, Unvented crawl space, in Condition 2.1 and Condition 2.2, "Section [N1102.2.8] <u>N1102.2.9</u>" shall be deleted and "the energy subcode (N.J.A.C. 5:23-3.18)" shall be inserted.

<u>x. In Section R408.7, Flood resistance, "as established by Table R301.2 (1)" shall be deleted.</u>

- 5. (No change.)
- 6. Chapter 6, Wall Construction, shall be amended as follows:
- i. In Figure R602.6.1, Notching and Bored Hole Limitations for Exterior Walls and Bearing Walls, ["eight-16 penny nails"] <u>"eight 10d nails"</u> shall be deleted and "three-8d nails" shall be inserted.
- ii. In Section R602.6.1, Drilling and notching of top plate, ["eight-16 penny nails"] <u>"eight 10d (0.148 inch diameter)"</u> shall be deleted and "three-8d" nails shall be inserted.
- iii. Section R606.1.1, Professional registration not required, shall be deleted [in its entirety].

iv. (No change.)

7. Chapter 8, Roof-Ceiling Construction, shall be amended as follows:

i. - ii. (No change.)

[iii. In Section R806.4, Condition attic assemblies, in Condition 2, the exception shall be deleted. In addition, Condition 3 shall be deleted. Finally, in Condition 4, "In Zones 3 through 8 as defined in Section N1101.2" shall be deleted and Condition 4

shall be renumbered as Condition 3.

- iv. In Section R808.1, Combustible insulation, in the second paragraph, "Section N1102.4.3" shall be deleted and "the energy subcode, N.J.A.C. 5:23-3.18" shall be inserted.]
 - 8. Chapter 9, Roof Assemblies, shall be amended as follows:
- i. In Section [903.4, 1] **R903.4.1**, Overflow drains and scuppers, in the last sentence, "International Plumbing Code" shall be deleted and "plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted in its place.
 - ii. (No change.)
 - 9. 11. (No change.)
- 12. Chapter 13, General Mechanical System Requirements, shall be amended as follows:
- i. In Section M1305.1.3.1, Electrical requirements, "Chapter [38] <u>39</u>" shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.
- ii. In Section M1305.1.4.3, Electrical requirements, "Chapter [38] <u>39</u>" shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.
 - iii. (No change.)
- iv. In Section 1307.5, Electrical appliances, "[Chapters 33 through 42] **and 34 through 43**" shall be deleted and "**and** the electrical subcode (N.J.A.C. 5:23-3.16) shall be inserted at the end of the sentence.
- v. <u>Section M1307.6, Plumbing Connections, "Chapters 29 and 30" shall be deleted and "the plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted in its place.</u>
 - **vi.** Add new Section [M1307.6] **M1307.7** as follows:
- [M1307.6] M1307.7 Safety devices and controls. Oil burners, other than oil stoves with integral tanks, shall be provided with means for manually stopping the flow of oil to the burner. Such device or devices shall be placed in a readily accessible location a minimum of 10 feet from the burner. For electrically driven equipment, an identified switch in the burner supply circuit shall be provided at the entrance to the room or area where the appliance is located or, for equipment located in basements, the switch is required to be located at the top of stairs leading to the basement. An identifiable valve in the oil supply line, operable from a location a minimum of 10 feet from the burner, shall be used for other than electrically driven or controlled equipment.
 - 13. Chapter 14, Heating and Cooling Equipment, shall be amended as follows:
 - i. (No change.)
- ii. In Section M1405.1, General, "Chapters [33] <u>34</u> through [42] <u>43 of this</u> <u>code</u>" shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.
- iii. In Section M1406.1, General, "Chapters [33] <u>34</u> through [42] <u>43 of</u> <u>this code</u>" shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.
- iv. In Section M1406.2, Clearances, "Chapters [33] <u>34</u> through [42] <u>43 of</u> <u>this code</u>" shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.
- v. In Section M1407.1, General, "Chapters [33] <u>34</u> through [42] <u>43 of this</u> <u>code</u>" shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.
 - vi. viii. (No change.)
 - 14. (No change.)

- 15. Chapter 20, Boilers/Water Heaters, shall be amended as follows:
 - i. (No change.)
- ii. In Section M2005.3, Electric water heaters, "Chapters [33] <u>34</u> through [42] <u>43</u>" shall be deleted and "the electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.
 - 16. Chapter 21, Hydronic Piping, shall be amended as follows:
- i. In Section M2101.2, System drain down, "Chapters 25 through 32 of this code" shall be deleted and "the plumbing subcode (*N.J.A.C.* 5:23-3.15)" shall be inserted.
 - ii. (No change.)
 - 17. Chapter 22, Special Piping and Storage Systems shall be amended as follows:
- i. In Section M2201.2, Above-ground tanks, in the first sentence <u>and in</u> <u>the exception</u>, "above ground or" shall be deleted [. Additionally, in the first sentence,] <u>and</u> "residential" shall be inserted before "building."
 - 18. (No change.)
 - 19. Chapter 24, Fuel Gas, shall be amended as follows:
- i. In Section G2402.3, Terms defined in other codes, ["ICC Electrical Code,] International Building Code, International Fire Code, and International Plumbing Code" shall be deleted and "electrical, building, fire protection, and plumbing subcodes" shall be inserted.
 - ii. v. (No change.)
- vi. In Section G2410.2, Connections, "Chapters [33] <u>34</u> through [42] <u>43</u>" shall be deleted and "the Electrical subcode (N.J.A.C. 5:23-3.16)" shall be inserted.
 - vii. (No change.)
 - ix. Add new Section G2412.9 as follows:
- G2412.9 (401.9) Protection from vehicle impact. Gas meters, related regulators and piping that are installed indoors or outdoors and are subject to vehicle impact shall be protected by barriers meeting the requirements of Section 312 of the International Fire Code. For the purpose of applying this provision, "subject to vehicle impact" shall mean located within three feet of any garage door opening, driveway or designated parking area and not separated by a building wall from the space where a vehicle may be operated.
- [(1)] Exception: If verification of the installation of an excess flow valve is provided by the gas utility, vehicle impact barriers shall not be required.
- x. <u>In Section G2413.6.1, Liquefied petroleum gas systems, insert the following at the beginning of the section: "The operating pressure for undiluted LP-gas systems shall not exceed 20 psig (140 kPa gauge)."</u>

Renumber x.- xiv. as xi. – xv. (No change in text.)

- 20. Chapters 25 through [32] **28** shall be deleted in their entirety. Plumbing requirements under the scope of this subcode shall be regulated by the plumbing subcode.
- 21. <u>Chapter 29, Water Supply and Distribution, shall be deleted except P2904, Multi-purpose fire sprinkler systems.</u>

i. Section P2904 shall be amended as follows:

(1) In Section P2904.1, General, the last sentence shall be deleted and "A backflow flow preventer shall be required to separate a stand-alone sprinkler system from the water distribution system in accordance with the

plumbing subcode (N.J.A.C. 5:23-3.15)." shall be inserted.

- (2) In Section P2904.2.3, Freezing areas, "Section P2603.6" shall be deleted and "the plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted.
- (3) In Section P2904.8.1, Preconcealment Inspection, item 8, "Section P2503.7" shall be deleted and "the plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted.
- 22. <u>Chapters 30 through 33 shall be deleted in their entirety. Plumbing requirements under the scope of this subcode shall be regulated by the plumbing subcode.</u>
- 23. Chapters [33] 34 through [42] 43 shall be deleted in their entirety. Electrical requirements under the scope of this subcode shall be regulated by the electrical subcode.
 - <u>24.</u> Chapter [43] <u>44</u>, Referenced standards, shall be amended as follows:
- i. Under the subheading, NFPA, "[NFPA 13D-02, Installation of Sprinkler Systems in One-and Two-Family Dwellings and Manufactured Homes; and] NFPA 13R-[02] <u>07</u>, Installation of Sprinkler Systems in Residential Occupancies Up To and Including Four Stories in Height" shall be inserted.
 - 25. The Appendices shall be amended as follows:
 - i. –iii. (No change.)
- iv. Appendix G, Swimming pools, Spas and hot tubs, shall be adopted as part of this subcode and Section AG105.2, Outdoor swimming pool, Provision 9 shall be deleted in its entirety. In the same section, under Provision 10, Item 10.1 shall be deleted. In addition, **the last sentence in** Item 10.2 shall [be renumbered as 10.1 and the last sentence shall] be deleted. Also, Section AG105.3, Indoor swimming pool, "Item 9" shall be deleted and "Items 1 through 7" shall be inserted. [Lastly, Section AG106, Entrapment protection for swimming pool and spa suction outlets, shall be deleted and "See N.J.A.C. 5:23-3.15, plumbing subcode." shall be inserted under the title.]
 - v. (No change.)
- vi. Appendix I, Private Sewage Disposal; Appendix J, Existing Buildings and Structures; Appendix L, Permit Fees; Appendix M, Home Day Care R-3 Occupancy; Appendix N, Venting Methods; Appendix O, Gray Water Recycling Systems; Appendix P, [Sprinkling] <u>Sizing of Water Piping Systems</u>; and Appendix Q, ICC International Residential Code Electrical Provisions/National Electrical Code Cross-Reference shall be deleted in their entirety.
- 5:23-3.22 Fuel gas subcode
- (a) Rules concerning the subcode adopted are as follows:
- 1. Pursuant to authority of P.L. 1975, c. 217, the Commissioner hereby adopts the model code of the International Code Council, Inc., known as the International Fuel Gas [Code/2006] <u>Code/2009</u>. This code is hereby adopted by reference as the fuel gas subcode for the State of New Jersey subject to the modifications in (b) below.
 - i. (No change.)

- ii. The International Fuel Gas [Code/2006] $\underline{\text{Code/2009}}$ may be known and cited as the "fuel gas subcode."
- 2. Any references to the International Plumbing Code, [ICC Electrical Code, International Energy Conservation Code] or the International Existing Building Code listed in Chapter 8 shall be considered a reference to the appropriate [adopted] plumbing[, electrical, or energy] subcode in N.J.A.C. 5:23-3 or rehabilitation subcode in N.J.A.C. 5:23-6.
 - 3. (No change.)
- (b) The following chapters, sections or pages of the International Fuel Gas Code/2006 shall be amended as follows:
- 1. Chapter 1 of the fuel gas subcode, entitled "**Scope and** Administration" is deleted in its entirety.
- 2. Chapter 2 of the fuel gas subcode, entitled "Definitions," is amended as follows:
- i. In Section 201.3, Terms defined in other codes, delete "[ICC Electrical Code, and] International Plumbing Code," and insert "[electrical subcode and] the plumbing subcode."
- ii. The definition of the term "alteration" is deleted [and the definition found in N.J.A.C. 5:23-1.4 is substituted];
 - iii. iv. (No change.)
- v. The definition of the term "code official" is deleted[, and the following language is substituted: "For the purpose of the fuel gas subcode, the term "code official" shall mean the appropriate subcode official as designated in N.J.A.C. 5:23-3.4."].
 - vi. (No change.)
- 3. Chapter 3 of the fuel gas subcode, entitled "General Regulations," shall be amended as follows:
- i. Section 301.1, Scope, is amended to delete the words "in accordance with Section 101.2."
 - ii. (No change.)
 - iii. Section 301.9, Repair, is deleted.
- iv. Section 305.1, General, delete [. Delete] the second paragraph in its entirety.
- v. <u>Section 307.1, Evaporators and cooling coils, delete "International Mechanical Code" and insert "plumbing subcode (N.J.A.C. 5:23-3.15).</u>

Renumber v.- vi as vi. – vii. (No change.)

- 4. Chapter 4 of the fuel gas subcode, entitled "Gas Piping Installation," shall be amended as follows:
 - i. –ii. (No change.)
- iii. <u>In Section 402.6.1, Liquefied petroleum gas systems, insert the following at the beginning of the section: "The operating pressure for undiluted LP-gas systems shall not exceed 20 psig (140 kPa gauge)."</u>
 - iv. Section 403.3, Other materials, is deleted.
 - 5. (No change.)

- 6. Chapter 6 of the fuel gas code, entitled "Specific Appliances," shall be amended as follows:
- i. <u>In Section 614.8, Common exhaust systems for clothes dryers located in multistory structures, item #7, insert ", if provided," after the word "and".</u>

Renumber i. as ii. (No change in text.)

- 7. Chapter 8 of the fuel gas code, entitled "Referenced Standards," shall be amended as follows:
 - i. Under the heading "ICC," amend the following titles:
 - (1) [Delete "ICC EC--06, ICC Electrical Code."
 - (2)] Delete "IEBC--06, International Existing Building Code."
 - [(3)] (2) Delete "IPC--06, International Plumbing Code."
 - 8. 9. (No change.)
- 5:23-12.2 Referenced standards.
- (a) (No change.)
- (b) All operating and electrical parts and accessory equipment [or devices] for elevator devices shall be maintained in safe operating condition. The elevator devices shall be maintained to conform to the applicable safety standard at the time of the installation and/or alteration. The maintenance of elevator[s, dumbwaiters and escalators] devices shall conform to the most recent edition of ASME A17.1, A18.1 or A90.1 referenced in the building subcode. Maintenance of ASME A17.1 elevator devices shall be in accordance with (c) below.
- (c) [(Reserved)] <u>Maintenance of elevator devices installed under ASME A17.1 shall</u> conform with the following:
- 1. Maintenance of elevator devices installed under ASME A17.1 shall comply with Sections 8.6.1 through 8.6.12 except for: 8.6.1.2.1, 8.6.1.3, 8.6.1.4, 8.6.1.6.3(a), 8.6.1.6.5, 8.6.5.8, 8.6.7.3, 8.6.7.4, 8.6.7.8, 8.6.7.9, 8.6.8.2, 8.6.8.3, 8.6.11.3, 8.6.11.4, 8.6.11.6, 8.6.11.7, 8.6.11.8, 8.6.12.1.2, 8.6.12.2.2, 8.6.12.2.4, 8.6.12.2.5, 8.6.12.2.6, and 8.6.12.3.4.
- 2. Additionally, escalators installed under ASME A17.1-2000 and later edition shall comply with sections 8.6.8.2 (d) and 8.6.8.3.
- 3. Where unique or product-specific procedures or methods are required to inspect or test equipment, such procedures or methods shall be made available to the owners and kept where they are readily available to the authority having jurisdiction, authorized and elevator personnel.
- $(d) \overline{(f) (No \text{ change.})}$
- 5:23-12.12 Special safety equipment
- (a) (d) (No change.)
- (e) A sign stating "DO NOT USE A STANDING ESCALATOR AS A BUILDING STAIR" shall be permanently placed where it is readily visible to the general public at the top and bottom landings of an escalator. [Each sign shall comply with the applicable requirements of ASME A17.1-93-95, Rule 805.2.b.] This requirement shall apply to new

escalator installations and to existing escalators. <u>Each of such signs on existing</u> escalators shall comply with the applicable requirements of ASME A17.1-93-95, <u>Rule 805.2.b.</u> Signs on newly installed escalators shall comply with the Additional Signs requirements of ASME A17.1 referenced in the building subcode.