# Construction Code Communicator

**State of New Jersey**
**Chris Christie, Governor**
**Kim Guadagno, Lt. Governor**

**Department of Community Affairs**
**Charles A. Richman, Acting Commissioner**

**Volume 27, Number 1** **Spring 2015**

## How Do I Calculate The Permit Fee For An Elevated Structure?

With the number of permits being issued for elevated structures increasing, there have been numerous questions on how to calculate the volume of these structures for fee purposes. NJAC 5:23-2.28, entitled Volume Computation, provides the answer.

At (b)2, the volume of a space below a structure without a basement/cellar is calculated from the floor assembly of the first story above grade to the bottom of the footing divided by five. This distance is not to exceed 2 ½ feet below the top of the floor assembly. Because the "bottom of the footing" is the base of the pile, the calculation will most likely exceed the maximum of 2 ½ feet below the top of the floor assembly. Once the area of the space below the structure is determined (using the 2 ½ feet maximum), this area is then added to the structure's volume for the fee calculation.

But, how does this apply to existing homes that are being elevated? Realizing that the elevation of an existing home is technically an addition (due to the increase in height), this is one of the few instances where we MUST use the cost of construction to calculate the fee; the elevation does not contain volume. Only that which is regulated by the UCC should be included in the cost of construction, so, the actual cost of the house jacking and cribbing should not be included in the cost of construction. The piles are regulated by the UCC and therefore should be included in the cost of construction for the calculation of the fee.

If you have any questions, feel free to contact the Code Assistance Unit at 609-984-7609.

Source: John N. Terry
Manager, Code Assistance Unit

***In This Issue***

## Licensing & Education Now Part of the Director's Office

Licensing & Education is now part of the Director's Office. Our phone numbers and e-mail addresses remain the same, but our P.O. Box is now 802. As a reminder, Licensing can be reached at 609-984-7834 or codes.licensing@dca.nj.gov and Education can be reached at 609-984-7820 or education.unit@dca.nj.gov.

Source: John Delesandro
Division of Codes and Standards

## The DCA/RU Education Program Joins ICC Preferred Provider Program

We are now an International Code Council (ICC) Preferred Provider of continuing education. Our continuing education programs are now a part of the ICC preferred provider program and, as such, courses completed to maintain your NJ Uniform Construction Code licenses will now fulfill the continuing education requirements necessary to maintain ICC certifications. More information on the ICC program can be found at their website: http://ppp.iccsafe.org/

Source: John Delesandro
Division of Codes and Standards

## Instructor Update Course / Advanced Train-the-Trainer

The Licensing Unit is in the process of updating its approved instructors and periodically requires the instructors to take courses to refresh their knowledge. This refresher will focus on preparing instructors to use "hybrid training" as part of their course development and delivery.

Hybrid training is delivering a course that is (1) face to face in a traditional classroom setting and (2) supplements the educational experience with online training. The online component will replace some elements of the face-to-face training, freeing up more classroom time for the most important topics and reducing the number of hours students need to be physically present in a classroom.

The idea behind this new focus is to attract new potential inspectors and to make courses more widely available, even to students in more remote locations within the State. The training will be broken into three components. The first component is an introduction to our online training platform which will be 2.5 hours in length. The second component is a five-hour, face-to-face classroom training on hybrid course development and teaching techniques. The third and final component will give the instructors an opportunity to put online training into practice, which will also be a shortened 2.5 hour class. Instructors who are currently teaching or otherwise active in the pre-licensing programs at the county colleges will be required to complete all three components and will receive a total 1.0 administrative CEU's. All other approved instructors must complete the second component, the face to face classroom training, and will receive 0.5 administrative CEU's. Both groups must complete the training in order to maintain their approvals.

Source: John Delesandro
Division of Codes and Standards

## Conflicting Requirements

Occasionally, there are conflicts between requirements contained in different documents. There is a relatively simple hierarchy for deciding which provision would govern. By operation of law, the provisions of a statute (the Uniform Construction Code Act) trump the provisions of an administrative rule (the Uniform Construction Code itself.) In theory, there should never be a conflict between a rule and the enabling statute, but were this to happen, the statute would govern. To continue down the hierarchy, the provisions of the rules, the Uniform Construction Code, trump the provisions of a model code adopted by reference in those rules. The provisions of a model code trump the provisions of a referenced standard. (For example, the provisions of the International Building Code would trump the provisions of a referenced NFPA standard.) And the provisions of a referenced standard trump the provisions of manufacturer's instructions.

When a conflict arises between two adopted model codes, the provisions of the model code that is the primary subcode for the subject in question would govern. For example, in a conflict between the building subcode and the electrical subcode, it is necessary to decide first whether this is primarily a building issue or primarily an electrical issue. The conflict would be resolved in favor of the provisions of the primary subcode.

Source: Amy Fenwick Frank
Division of Codes and Standards

## When Are Emergency Responder Radio Coverage Systems Required?

Since the 2009 International Building Code (IBC) became effective on March 7, 2011, an emergency responder radio coverage system has been required for all new buildings. IBC/2009 Section 915.1 "**General"** requires these systems to be installed in all new buildings in accordance with the International Fire Code (IFC).

**IFC/2009 Section 510.1 "Emergency responder radio coverage in buildings"**
The IFC provides two exceptions to these requirements and they are as follows:

1. In lieu of a radio coverage system, the fire subcode official may allow a wired communication system that is installed in accordance with IBC/2009 Section 907.2.13.2.
2. The fire protection subcode official may also determine that the radio coverage system is not needed.

So a proposed wired system can be approved by the local fire protection subcode official; or when the building is small (under 50,000 square feet) or open enough that a radio system is not needed, it can be omitted.

The following is a list of what the fire protection subcode official should be requesting from the 2009 IFC:

**Section 510.1 Emergency responder radio coverage in buildings** basically requires the same level of coverage inside the building as the public safety communications system has for the exterior of the building.

**Section 510.2 Radio signal strength** considers the coverage to be acceptable when 95% of all areas of each floor has a signal strength of -95 dBm into the building from the public system and -100 dBm out of the building via the agency's radio back to the public system.

**Section 510.3 Emergency responder radio coverage in existing buildings** allows a radio system to be installed in existing buildings that do not have an approved radio coverage system or when the existing wired system cannot be repaired or replaced.

At a minimum, the fire protection subcode official should be getting an application showing the above is going to be met for all emergency responder radio frequencies within the municipality. The public safety radio professional from the municipality should be consulted for frequencies and communication levels around town. There is no across-the-board exemption for these systems. However, smaller buildings (under 50,000 square feet) or buildings without basements should be okay without a radio coverage system.

Source: Michael Whalen
Code Assistance Unit

## Attention UCCARS I and II Users

We will be phasing out the UCCARS I and II systems completely in the not too distant future. Therefore, it is ***highly*** recommended that your municipality switch to either PermitsNJ or another third party permitting software package as soon as possible. If your municipality wishes to switch from UCCARS I to PermitsNJ, we will convert your UCCARS I data provided that you get it to us by **June 30, 2015**.

If your municipality wishes to continue using the UCCARS I or II system until the absolute deadline, whenever that may be, please be aware that UCCARS will not function on the **"64-bit versions of Windows 7 or Windows 8"**. In order to keep the UCCARS system operational, the computer must be running a version of the Windows operating system that is "**32-bit"**. Please keep this in mind if your municipality has to purchase new computer equipment. Once the deadline passes, we will no longer accept monthly data, in any capacity, from the UCCARS I or UCCARS 2 systems.

If you have any questions about this article or about how to get your UCCARS I data to the DCA for conversion into PermitsNJ, please feel free to contact me at (609) 292-7899 or charles.pierson@dca.nj.gov.

Source: Charles Pierson Jr.
PermitsNJ / UCCARS Product Support
Division of Codes and Standards

## "Protection" of Oil Tanks

What does "protection from the weather" mean in terms of an aboveground outside heating oil tank?

Section M2201.2.2 of the International Residential Code (IRC) states, "Tanks installed outside above ground shall be a minimum of 5 feet from an adjoining property line. ***Such tanks shall be suitably protected from the weather and from physical damage.***"

*(article continued on next page)*

Looking to the IRC commentary, the intent of this section is that these tanks are to be protected, at a minimum, in a manner that usually consists of high-quality exterior grade paint.

If you have further questions, please contact the Code Assistance Unit at (609) 984-7609.

Source: Tom Pitcherello
Code Assistance Unit

## Openings in Wind-Borne Debris & Hurricane-Prone Regions

Since the adoption of the International Building Code (IBC) and International Residential Code (IRC), the requirements for openings subject to wind-borne debris or hurricane-prone regions have been a bone of contention. Other than the same old news, there is some good news on the horizon with the upcoming adoption of the 2015 I-codes.

As the State has adopted the 2000, 2006 and currently is still using the 2009 editions of the IBC and IRC, brand ***new buildings*** constructed within one mile of the mean high water line of the Atlantic Ocean and having a wind speed of 110 miles per hour are required to have openings that are protected from wind-borne debris. Protection measures can be found at Section 1609.1.2 of the IBC/2009 and Section R301.2.1.2 of the IRC/2009.

In terms of ***existing buildings***, the above referenced sections are NOT part of the Rehabilitation Subcode, as they are not listed as a material and method at NJAC 5:23-6.8(b) and (h), respectively. Therefore, the opening protection referenced above is not required for existing buildings. The only caveat to this is if the building was built to one of the referenced codes above and already had opening protection, then the protection would have to be maintained.

In the case of an addition in this location, we all know that NJAC 5:23-6.32(a) requires the addition to meet new code requirements. However, what should one do if the existing building never had opening protection? This is a good example of a time to utilize NJAC 5:23-2.9 through 2.13 and grant a variation for this addition not to meet the opening protection requirements since the existing building does not have these protection measures and this requirement is really one that is all or nothing; in this case, default to nothing.

Lastly, the GOOD NEWS…with the adoption of the 2015 codes upon us, the IBC/2015 and IRC/2015 have reevaluated these requirements (i.e. contour lines delineating zones have moved) and New Jersey is no longer subject to the opening protection requirements discussed above.

If you have further questions regarding this, please contact the Code Assistance Unit at (609) 984-7609.

Source: Rob Austin
Code Assistance Unit

## Are You Using the Right Pipe Dope/PTFE (Polytetrafluoroethylene) Tape?

Pipe dope and PTFE tape (often called by its DuPont trade name “Teflon”) are not appropriate for all applications. Whether the pipe dope or tape you are using is appropriate can depend on the pipe material being used, the substance that the pipe conveys (water, steam, Natural Gas, Liquefied petroleum Gas etc.), the temperature the pipe will be exposed to, whether the pipe is subject to vibration, and in some cases, the diameter of the pipe. There is no easy way to identify whether the pipe dope or tape is appropriate for the application because different manufacturers use different colors, names and containers to identify products that have similar performance characteristics. There is not a specific color of pipe dope or tape that is allowed for a given application though many use yellow to signify that a product is acceptable for Natural Gas applications. In some cases, the limitations of the pipe dope or tape can be pretty subtle. For example, pipe dope or tape that is allowed for Natural Gas may not be permitted for Liquefied Petroleum Gas and vice versa. Using the correct pipe dope or tape with Natural Gas and Liquefied Petroleum Gas is particularly critical.

To be sure that the appropriate pipe dope or tape is being used, always consult the container label and/or the manufacturer’s literature.

Source: John Tomasone
Liquefied Petroleum Gas Safety and Education Board

## Minor Work and Building Drain/Sewer and Water Services

The Department has received numerous calls from project applicants inquiring as to how long a trench for water service and/or building sewer repair/replacement must be left open for inspection. Some towns put these open trench inspections to the top of their daily inspections; however, some are requiring that these trenches remain open until the next available inspection date. The Department has been made aware of scenarios in which the next available date is extended from one to two weeks out. **This is unacceptable and a violation of the UCC.** As per NJAC 5:23-2.18(c)2, inspections must be performed within three business days of the time for which it was requested.

This work can be considered Ordinary Maintenance, provided the scope of work is the replacement of piping between two adjacent joints, or Minor Work. The below scenarios describe the work and the applicable inspection requirement.

**Scenario 1**
Water and/or sewer service to a building is leaking. Service company digs up the service, cuts the leaking section of pipe out and replaces it with a new piece. This is Ordinary Maintenance under NJAC 5:23-2.7(c)2iv.
**NO permit is issued / NO inspection performed.**

**Scenario 2**
Water and/or sewer service to a building is leaking. Service company digs up the service and replaces the entire service with a new service **of like capacity (i.e. same diameter)**. **This is Emergency Work.** The applicant must notify the Local Enforcing agency (LEA) **"as soon thereafter as is practicable"** that the service was replaced and has 72 hours after this notification to apply for the permit as per NJAC 5:23-2.14(b)3. A Minor Work Permit should be issued as per NJAC 5:23-2.17A(c)2. The inspection must be performed within 30 days by the LEA and a Certificate of Approval is issued as per NJAC 5:23-2.17A(d)2.

Minor Work requires that the inspection be based upon what is visible at the time of said inspection. The connection to the utility and the connection to the existing piping is all that is inspected. If the connection to the existing piping is made on the interior of the building, then the penetration through the wall must be seen to ensure that both the interior and exterior sides of the wall are sealed properly. **The entire trench DOES NOT need to remain open.**

**Scenario 3**
Same as scenario 2 **however** the service is replaced with a new one of **DIFFERENT CAPACITY** (i.e. Change in diameter of the pipe either larger or smaller). This is **NOT** Minor Work, but **IS** Emergency Work. The work may be done and the permit applied for under NJAC 5:23-2.14(b)3. The inspection is to be performed within three business days as per NJAC 5:23-2.18(c)2.

**Scenario 4**
An addition is being constructed that includes fixtures that increase loads on the service and the service must be increased in size. The existing service is to be replaced with a new one of greater capacity. This is **NOT** Minor Work [except one- and two-family dwellings pursuant to NJAC 5:23-2.17A(c)1ii] nor is it Emergency Work. Before the service can be replaced, a permit must be applied for under NJAC 5:23-2.14(a). Inspections are performed as per NJAC 5:23-2.18(c)2.

These additional questions may arise from the above four scenarios:

**How much pipe can be replaced under Ordinary Maintenance?**
This distance will vary depending upon the material installed.

**What if the leak is at a fitting between two other joints?**
The leaking fitting should be considered as the "leak" and the distance should be based on the two adjacent joints on either side of the leak.

**How should the contractor keep the areas open that need to be seen?**

This is up to the contractor. They can use plates over the open holes, piping installed over the connections with a removable cap on top as a view port provided it is not Minor Work.

Source: William B. Schmidt & Thomas Pitcherello
Office of Regulatory Affairs & Code Assistance Unit

## Foundation Drains Filter Membrane Material

A question has arisen about the filter membrane material required on top of the foundation drain. As per Section R406.4.2 of the International Residential Code/2009 and Section 1805.4.2 of the International Building Code/2009, a drain must be placed around the perimeter of a foundation that consists of gravel or crushed stone. The specific requirements are:

> "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 sieve. The drain shall extend a minimum of 12 inches 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 6 inches 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 2 inches of gravel or crushed stone complying with Section R406.4 and shall be covered with not less than 6 inches of the same material."

A foundation drain is always required, however a dedicated drainage systems is not required where the site is located in a well-drained gravel or sand/gravel mixture.

But what about the approved filter membrane material? The code requires that the top of the drain, top of joints or the top of perforations, be covered with an approved filter membrane material.

What this means is, the top of the gravel or crushed stones or joints or perforations must be covered with an approved filter membrane material to prevent the fine particles that may be contained in the surrounding soil from entering the drainage system and being carried away by water. The filter membrane allows the water to pass through the perimeter drain tile or perforated pipe without allowing, or at least greatly reducing, the possibility of fine soil material entering the drainage system. The fine particles, in time, could possibly cause the undermining of the footing and settlement of the foundation wall.

If you have any questions on this, please direct your calls to me at (609) 984-7609.

Source: Marcel Iglesias
Code Assistance Unit

## The CEO's Private Bathroom

Reviewing a set of plans that includes a private bathroom accessed only from the office of the CEO? Well, don't let them bully you and say they don't want an accessible bathroom with grab bars, etc! Just remind them, as per NJAC 5:23-7.12(a), all toilet and bathing facilities must be accessible in accordance with the ICC/ANSI A117.1-2003.

Now, not all is lost for the CEO though. He/she does get to have it his/her way, to a point. Yes, the bathroom must be accessible BUT there are exceptions built into Chapter 6, Plumbing Elements and Facilities, to customize the executive washroom. These exceptions are as follows:

* Section 603.2.3, Door Swing [Clearance], exception 1;
* Section 604.3.2, Overlap [Clearance], exception (as amended by NJAC 5:23-7.2(b)10);
* Section 604.4, [Toilet] Height, exception;
* Section 604.5, [Toilet] Grab Bars, exception 1;
* Section 606.2, [Lavatory] Clear Floor Space, exception 2;
* Section 606.3, [Lavatory] Height, exception;
* Section 607.4, [Bathtub] Grab Bars, exception 1
* Section 608.3, [Shower Compartment] Grab Bars, exception 1; and
* Section 608.4, [Shower Compartment] Seats, exception 1.

So, in short, the CEO's private bathroom has to be accessible with the exceptions provided above.

> Note: Upon adoption of the 2015 I-codes, the references from NJAC 5:23-7 above will be built into Chapter 11 of the IBC/2015, which in turn, will update the references to the 2009 edition of the ICC/ANSI A117.1.

If you have further questions, please contact the Code Assistance Unit at (609) 984-7609.

Source: Rob Austin
Code Assistance Unit

## Multiple Permits for Multiple Dwellings Mean Multiple Mistakes

Jane and Joe are construction official and technical assistant for a town with a new multifamily development. It has three buildings, each with 24 dwellings. They should issue three permits for the development, one for each building. Each permit should show 24 dwellings gained. For apartments, record 24 rental units. For condominiums, report 24 for-sale units. Three buildings. Three permits, each shows 24 dwellings.

What Jane and Joe did instead was to issue 72 building permits, one for each dwelling. They calculated all of the important building features on a per-dwelling basis. They divided the estimated construction cost, floor area, volume, and fees for each building by the number of dwellings. On each permit, however, they entered 24 units. They did this 72 times, reporting 1,728 new dwellings, when they meant 72. Silly mistake, right? Sure, but that is not the point of the story.

Jane and Joe do something many others do. They issue separate building permits for each dwelling in a multifamily building. Why?

There are several good reasons. One is to better track the construction process, which has become more complex. In the 1990s, over 80 percent of new housing was single-family, detached units. These were easy to monitor. Today, nearly half of all new dwellings are attached to other units. Housing is harder to track. Separate permits help keep tabs on what needs to be done, when, and where.

Another reason is homeowners, banks, mortgage providers, and warranty companies need these records. Fire walls and other construction practices allow for the dwellings in multifamily buildings to be completed and occupied at different times, over months, even years. Many need to know when dwellings are completed.

While these are valid reasons, they don't change what should happen. Joe and Jane should have issued three permits, one for each building. Each of these permits should have reported a gain of 24 dwellings. If they needed separate permits for each dwelling, they should view the multifamily building like a shopping mall. Issue a separate permit for the mall. Report features for the entire building. When it's time to fit out different shops within the shell, issue a separate permit for each store. These are alterations. Don't repeat information already reported for the shell.

For a multifamily building, issue one permit for the entire building. Report all important features of the building. This includes its estimated construction cost, floor area, volume, and the expected number of dwellings *for the entire building*. If you need a separate permit for each dwelling, and your reporting software can't do this, think of each unit as a shop in a mall. Issue separate alteration permits for them, but don't repeat information already on the primary permit. Report the number of dwellings expected for the entire building on the primary permit. When it's time for the first householder to move in, issue a certificate of occupancy (CO) or temporary CO for the entire shell.

If you have questions regarding this, please call (609) 292-7898 or email me at John.Lago@dca.nj.gov.

Source: John Lago
Division of Codes and Standards

## Housing in Mixed-Use Buildings

A new house was easy to spot in the 1990s. Back then, most new houses were detached, single-family units. Now, nearly half are attached to other dwellings. Some are in buildings with office, retail, and other uses. Mixed-use buildings are a growing development trend. While they may make for better living, they raise special issues on how this information is reported.

Most construction officials and technical assistants know they must report new dwellings on building permits for mixed-use buildings. What they may not know, however, is the way they record this information matters. On permits for mixed-use buildings, construction officials and technical assistants are trained to report the primary use first. Secondary uses follow. Order matters, especially to the US Census Bureau. They only "see" the first building use entered on the permit. A permit for a new building with 25,000 square feet of retail space and three small apartments gets reported as an "M" use (for mercantile) and then an "R-2" use (multifamily housing). Because "M" is the primary use, the permit is tagged with a "999" item number. This tells the Census Bureau to ignore it, even though the building has new housing.

Your training still applies. For mixed-use buildings, enter the primary use first. Use your judgment. If housing is an equal or important part, enter the residential use first. This will bring the new housing to the attention of the Census Bureau.

If you have questions regarding this, please call (609) 292-7898 or email me at John.Lago@dca.nj.gov.

Source: John Lago
Division of Codes and Standards

## Census Item Numbers

As technical assistants and construction officials, you know a lot gets entered on building permits. One important piece of information is Census Item Numbers. They are used by the US Census Bureau to track new housing on building permits. "Authorized housing" is an important economic indicator the federal agency reports each month.

What are the item numbers and how do they work? There are only five numbers to know. The most common is **999.** This is used for all the building permits the Census Bureau wants to ignore. These include any building permits for commercial buildings. It also is used for all permits on existing buildings, even if the authorized work creates new housing. You still must count and report the new units from conversions, additions, or other alterations. Just tag them with item number **999** to distinguish them from dwellings created from new construction permits.

For a new, single-family house, the correct item number is **101**. The number of dwellings gained is one. If the single-family house is attached to another unit, say a row-house, the correct item number is still 101. The Census Bureau used to have 102 for row houses, but this got too confusing. That item number is no longer used.

A new duplex is a **103.** The number of units gained is always two. One dwelling might be for sale, and the other for rent. Both can be either for sale or rent. Make your best guess if you don't know, but the sum must be two. If you enter two units for sale and another two for rent, you reported four dwellings. That is not a duplex.

Census item number **104** is for a new residential building with either three (3) or four (4) dwellings. They can be for sale or for rent or any combination of these two options, but the total must add up to three or four.

**105** is the item number for a new, residential building with 5 or more dwellings. All permits for them should show at least five (5) housing units. Some building departments want to report individual dwellings in multifamily buildings separately. This is a dangerous practice, and a topic for a different article, titled "Multiple Permits for Multiple Dwellings Mean Multiple Mistakes." For now, when you issue a building permit for a new residential building, and it is expected to have five or more dwellings, use item number 105.

The table below summarizes Census Item Numbers.

| **Census Item Numbers** | | |
|---|---|---|
| **Item #** | **Used when:** | **Number of dwellings** |
| **999** | Used for all permits for office, retail, and other nonresidential buildings, as well as for all additions and alterations to any *existing* building, including those with residential uses. Use 999 even if the addition or alteration work creates new housing. | Usually zero, but report any new housing from alterations & additions. |
| **101** | A new single-family house; dwelling units gained is one. The dwelling can be detached or attached, for example, a townhouse. | **Most of the time: 1; can be more for single-family attached housing.** |
| **103** | A new duplex with two new dwellings | **2** |
| **104** | A new residential building with either three or four new dwellings. | **3 or 4** |
| **105** | A new residential building with five or more dwellings. | **5 or more** |

If you have questions regarding this, please call (609) 292-7898 or email me at John.Lago@dca.nj.gov.

Source: John Lago
Division of Codes and Standards

The Construction Code Communicator is an online publication of the New Jersey Department of Community Affairs' Division of Codes and Standards. It is typically published four times a year.

Copies may be read or downloaded from the division's website at: www.nj.gov/dca/divisions/codes.

Please direct any comments or suggestions to the NJDCA, Division of Codes and Standards, Attention: Code Development Unit, PO Box 802, Trenton, NJ 08625-0802 or codeassist@dca.nj.gov.

## Pile Certifications Required Per NJAC 5:23-2.18

In accordance with P.L. 2014, c. 34, the Department of Community Affairs has adopted amendments and a new rule for the elevation of existing buildings. These amendments became effective on October 1, 2014 and one item of specific concern is the pile certification.

The rules state that "the certification shall include, but not be limited to, verification that the size, type, and location of the piles conforms to the released plans and that the piles are properly set to support the design loads. Such certification shall be based upon personal observations made by the design professional at the site."

So, what is needed to comply? A pile log and certification. What does this consist of?

- **Pile Log –** These are recorded field observations of piles being driven. (See sample form below.) A separate form should be completed for each pile witnessed. Completing pile logs requires on-site field inspection by the licensed design professional or one of his/her employees. This is not unlike a special inspection.

- **Pile Certification -** This term must be used in the submittal. The pile certification must address the size, type and location (including spacing) of the piles.

Sharing these expectations with applicants may help to avoid delays later in the process. This information can be provided in the format the design professional prefers: letter, plan, details, etc. The design professional may even reference the original plans, but the certification must indicate that the design professional has verified (through field observation) that the piles are as specified on the plans. Remember, the Pile Certification must be submitted BEFORE the house is set or constructed on the piles.

SAMPLE FORM

| Pile Log | | | | | |
|---|---|---|---|---|---|
| Project: | | | Date: | | |
| Contractor | | | Inspector: | | |
| Building | | | Pile location: | | |
| Pile | Type: | | Size (Butt/Tip): | | |
| Elevation Ground: | Pile Tip Elevation: | | Cut off Elevation: | | |
| Hammer/Make/Model | | | | | |
| Depth in ft. | Blows/ft. | comments | Depth in ft. | Blows/ft. | comments |
| 1 | | | 16 | | |
| 2 | | | 17 | | |
| 3 | | | 18 | | |
| 4 | | | 19 | | |
| 5 | | | 20 | | |
| 6 | | | 21 | | |
| 7 | | | 22 | | |
| 8 | | | 23 | | |
| 9 | | | 24 | | |
| 10 | | | 25 | | |
| 11 | | | 26 | | |
| 12 | | | 27 | | |
| 13 | | | 28 | | |
| 14 | | | 29 | | |
| 15 | | | 30 | | |

If you have further questions regarding this, please contact the Code Assistance Unit at (609) 984-7609.

Source: Lisa LaRue & Marcel Iglesias
Division of Codes and Standards

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# Construction Code Communicator

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**Kim Guadagno, Lt. Governor**

**Department of Community Affairs**
**Charles A. Richman, Commissioner**

**Volume 27, Number 2** **Summer 2015**

## 2015 I-Codes and 2014 NEC Adoption… (September 21, 2015)

## …2015 National Standard Plumbing Code Proposal… (August 17, 2015)

## …Building Safety Conference 2015… (Recap)

## …and more!

**Registration for Fall 2015 CEU's, Now Open**

http://www.nj.gov/dca/divisions/codes/forms/pdf_licensing/ucc_fall_brochure.pdf

***In This Issue***

## The 34th Annual Building Safety Conference of New Jersey

The 34th Annual Building Safety Conference was held May 6th through 8th at Bally's in Atlantic City. Our focus this year was on the pending adoption of new editions of the model codes. We had a successful conference this year with over 500 people in attendance.

The kickoff event for the Conference, as always, was the "Crackerbarrel." This very popular event gives our guests the opportunity to hear from a variety of presenters in a short format style that focuses on new items of particular interest to the code enforcement community. The topics this year ranged from a discussion of the integration of online training into code enforcement courses to brief updates on all the new model codes.

The centerpiece of the Building Safety Conference was the opportunity to recognize and honor those selected by their associations as Inspectors of the Year and as the Technical Assistant of the Year. We were honored to once again have Director Edward Smith and the Presidents of the respective associations in making the award presentations at the annual luncheon.

The following awards were presented:

New Jersey Building Officials Association
Building Inspector of the Year -- Robert A. Burlew

New Jersey State Plumbing Inspectors Association
Plumbing Inspector of the Year -- David M. Bishop

New Jersey Fire Prevention and Protection Association
Fire Protection Inspector of the Year -- Ronald J. Piszar

Municipal Electrical Inspectors Association of New Jersey
Electrical Inspector of the Year -- Brian J. Vanore

New Jersey Association of Technical Assistants
Technical Assistant of the Year -- Pamela A. Schwarz


*New Jersey Building Officials Association*
Building Inspector of the Year -- Robert A. Burlew (w/ NJBOA President Bob LaCosta & Director Smith)


*New Jersey State Plumbing Inspectors Association*
Plumbing Inspector of the Year -- David M. Bishop (w/ NJPIA President Frank Speranza & Director Smith)


*New Jersey Fire Prevention and Protection Association*
Fire Protection Inspector of the Year -- Ronald J. Piszar (w/ NJFPPA Treasurer Rich Vigliotti, NJFPPA Central Regional Vice President Kevin Batzel, NJFPPA President Rich Silvia & Director Smith)


*Municipal Electrical Inspectors Association of New Jersey*
Electrical Inspector of the Year -- Brian J. Vanore (w/ MEIA of NJ President Ed Reed & Director Smith)

*New Jersey Association of Technical Assistants*
Technical Assistant of the Year -- Pamela A. Schwarz (w/ Central Jersey Technical Assistant Association President Kathy Newcomb, NJ ATA Vice Pres. Debbie Simone & Director Smith)

Congratulations to all for your hard work and dedication to improving code enforcement in New Jersey!

The Building Safety Conference is a unique opportunity to broaden your knowledge of cutting-edge code enforcement and building construction techniques while also providing an opportunity to meet with your peers throughout the State to share ideas and promote camaraderie and collegiality among the code enforcement community. The Conference Committee is always on the lookout for great and innovative ideas to meet the needs of our attendees. If you have any ideas, please pass that along to your association or email us at john.delesandro@dca.nj.gov.

We hope to see you all next year at Bally's in Atlantic City May 4th through 6th, 2016. Please save the date and now you can "like" us on Facebook for event updates, room locations and all other important information!

Source: John Delesandro
Supervisor, Education and Licensing Units

## 2015 I-Codes and 2014 NEC Adoption

BIG NEWS…the 2015 I-Codes and 2014 National Electrical Code (NEC) are adopted as of September 21, 2015. Originally proposed January 5, 2015, additional changes were made upon adoption. You can find the proposal and the adoption, which modifies the proposal, at http://www.nj.gov/dca/divisions/codes/codreg/rule_proposals_adoptions.html and scrolling to the "January 5, 2015" row in the chart provided.

As always, there is a six-month grace period starting from September 21, 2015 during which applicants may submit a complete permit application, including all prior approvals, to be reviewed under the code in force immediately preceding the subcode revision. Provided that the application is complete, the construction official and applicable subcode officials should perform the plan review and issue construction permit(s) based on the code in force immediately prior to the operative date of the subcode revision. This means that the last day for application submission under the 2009 I-Codes and 2011 NEC is March 20, 2016.

Please note that the 2015 National Standard Plumbing Code (NSPC) is not part of this adoption and has its own proposal and will be on a slightly different track, hopefully only being a few months delayed to catch up with the other 2015 codes. (More on this subject can be found in another article within this edition of the *Construction Code Communicator*.)

Some brief highlights of the move from 2009 to 2015 editions of the International Building and Residential Codes, IBC and IRC, are as follows (keep in mind, the change may have happened in the 2012 editions, which NJ did not adopt, and are new to the us in the 2015 codes):

- Chapter 10, Means of Egress, of the IBC has been reformatted. More specifically, Section 1006, Number of exits and exit access doorways, is a consolidation of 2009 Sections 1014.3 (Common path of travel), 1015 (Exit and exit access doorways) and 1021 (Number of exits and exit configuration). Section 1007, Exit and exit access doorway configuration, is a consolidation of 2009 Sections 1015.2 (Exit or exit access doorway arrangement) and 1021.3 (Exit configuration).
- Chapter 11, Accessibility, of the IBC has been adopted in place of most of NJAC 5:23-7, the Barrier Free Subcode (the recreation portions remain as is).
- Wind Borne Debris Regions in both the IBC and IRC have been narrowed and no longer cover or apply to the State of New Jersey with the exception of Category IV structures (police and fire stations, emergency shelters) and health care facilities.
- The wind design criteria of the IRC (Section R301.2.1) have changed in that ALL buildings subject to the one- and two-family dwelling subcode may be designed using the IRC and not the high wind manuals required in the past.
- The floors overhead in a basement that are constructed of engineered wood products in buildings not provided with fire sprinklers are required to be protected with a ½ inch gypsum wallboard or 5/8 inch wood structural panels per Section R302.13 of the IRC.

Again, these are only a few of the changes that occurred in the “building” codes and the full list of changes for all adopted codes can be found in the proposal and adoption link provided above.

For the IBC and IRC, there will be NJ specific versions that the International Code Council will have available for purchase from their website at www.iccsafe.org. For all other codes, be sure to mark the changes from Subchapter 3 of the UCC within the code book.

Also, as with any new code adoption, other updates are required throughout NJAC 5:23 for general cross references, Responsibilities (Section 3.4) and Rehab (Subchapter 6). These will appear as proposals in the New Jersey Register in the near future. Also, Bulletins and Formal Technical Opinions will be revised, have code reference updates, be newly introduced or withdrawn.

Source: Code Assistance Unit
(609) 984-7609

## 2015 National Standard Plumbing Code (NSPC) Proposal

As mentioned in the other 2015 codes article, the 2015 NSPC is on a slightly different track for adoption. It has been proposed on August 17, 2015 issue of the New Jersey Register meaning the clock for the 60-day comment period has already started (ends October 16, 2015). If you like to view the proposal, please visit http://www.nj.gov/dca/divisions/codes/codreg/rule_proposals_adoptions.html and scroll to the “August 17, 2015” row in the chart provided.

Source: Code Assistance Unit
(609) 984-7609

## Electrical Bonding of Corrugated Stainless Steel Tubing (CSST) UPDATE

Section 310.1.1 of the 2009 and 2015 International Fuel Gas Code (IFGC) and Section G2411.1.1 of the 2009 and 2015 International Residential Code (IRC) require CSST gas piping to be bonded.

CSST manufacturers have recently introduced a new product that has been listed and tested that would not require additional bonding, provided the product is installed in accordance with the conditions specified in the manufacturer's installation instructions.

The question: May this product be used without a variation?

As per NJAC 5:23-3.7(a)2, Municipal approvals of alternative materials, equipment, or methods of construction, if the manufacturer has reports of engineering findings issued by nationally-recognized evaluation service programs, such as, but not limited to, the International Code Council (ICC- ES – PMG) and the National Evaluation Service, Inc., these findings shall be accepted by the appropriate subcode official as meeting the requirements of NJAC 5:23-3.7(a). The materials, equipment, or assembly shall be installed in accordance with the conditions specified in the report.

Therefore, if the product has a nationally-recognized evaluation service report, as described above, a variation would not be required.

Should you have any questions, you may contact me at (609) 984-7609.

Source: Thomas C. Pitcherello
Code Assistance Unit

## Plumbing Fixture Count

*(Reprinted with updated references from Volume 17 Number 1 Spring 2005)*

Since the International Building Code (IBC) was adopted, the Department of Community Affairs has received many calls pertaining to the differences in [use] group classifications between those cited in the IBC and the National Standard Plumbing Code (NSPC).

Table 7.21.1 of the NSPC/2015 cites similar [use] group classifications as the IBC, but they are not exactly the same. So, to determine the proper plumbing fixture count, and to avoid any misinterpretation between the building and plumbing codes, it is recommended that the DESCRIPTIONS of the building use as set forth in both the building and plumbing codes be used, and NOT simply the [use] group classification.

Should you have any questions, you may contact me at (609) 984-7609.

Source: Thomas C. Pitcherello
Code Assistance Unit

## UPDATE - Flood Elevation FAQs: NJ's Emergency Flood Elevation Rule

In the Spring 2013 *Construction Code Communicator*, we published an article of frequently asked questions (FAQs) provided by the Department of Environmental Projection in relation to the Flood Hazard Area Control Act. The FAQ that addressed substantially damaged homes having up to four years to elevate using increased cost of compliance (ICC) monies has been revised as the time to elevate has been extended to six years per FEMA memorandum W-15038 dated August 10, 2015. Therefore, the FAQ should now read:

Q: If my home is determined to be substantially damaged, can I still live in it until I elevate?

A: Homeowners may live in structures that are deemed substantially damaged for up to six years before needing to elevate if they can take temporary measures to make their homes habitable. The determination of habitability must be made by the local construction official.

The official memorandum is provided on the next page but if you'd like your own copy, please visit http://nfipiservice.com/Stakeholder/pdf/bulletin/w-15038.pdf.

U.S. Department of Homeland Security
Washington, D.C. 20472

FEMA

W-15038

August 10, 2015

MEMORANDUM FOR: Write Your Own (WYO) Company Principal Coordinators, WYO Vendors, NFIP Servicing Agent, and Independent Adjusting Firms

FROM: Roy E. Wright
Deputy Associate Administrator for Insurance and Mitigation

SUBJECT: **Extension of the Current Four-Year Time Limit for Completing Increased Cost of Compliance Benefit Related Work to a Six-Year Time Limit for All Flood Claims Occurring After January 1, 2011**

The National Flood Insurance Program (NFIP) provides Increased Cost of Compliance (ICC) coverage to pay up to $30,000 towards the cost of compliance with State or local floodplain management laws or ordinances (Section III.D – Increased Cost of Compliance of the Standard Flood Insurance Policy (SFIP)). The Standard Flood Insurance Policies (SFIPs) provide two years from the date of loss for the policyholder to complete the ICC qualifying work in Section III, Coverage D.

In FEMA bulletins w-13006 and w-13024, the Associate Administrator for the Federal Insurance and Mitigation Administration exercised his waiver authority to conditionally allow for advance payments of ICC funds (up to ½ of the amount for the qualifying work or a maximum of $15,000) and extended the two year time frame to complete the ICC mitigation to four years from the date of loss. In the event the required mitigation measures are not completed within four years, the remaining ICC benefit cannot be paid and any advance payment received by the policyholder must be returned.

ICC benefits may also be used as the non-Federal cost share for FEMA mitigation grant projects where the cost share is the responsibility of the NFIP policyholder. The mitigation grant process, however, may often extend beyond four-years from the date of the flood loss.

To facilitate the completion of mitigation grant-related activities without the need for additional waivers of the now four-year time frame to complete qualifying ICC work, I hereby waive the provisions of Section III.D.5.e of the SFIP Dwelling form, General Property form and the Residential Condominium Building Association Policy form and allow an additional two years to complete the approved ICC mitigation measures for all losses occurring on or after January 1, 2011. This means NFIP policyholders will now have six years to complete the approved ICC mitigation measures starting on the date of the underlying flood insurance indemnity loss if the loss occurred on or after January 1, 2011. This bulletin does not alter any applicable time frames for any loss occurring before January 1, 2011.



Any conflicting and previously issued waivers and guidance are hereby amended by the issuance of this bulletin.

AUTHORITY: This waiver is made pursuant to the SFIP provisions dealing with Amendments, Waivers, and Assignments of the SFIP (VII. D of the SFIP Dwelling Form, General Property Form and VIII, D of the SFIP Residential Condominium Building Association Policy Form) and 44 C.F.R. § 61.13(d).

Thank you for your continued cooperation.

cc: IBHS, FIPNC, Government Technical Representative

Suggested Routing: Claims, Underwriting

Source: Code Assistance Unit
(609) 984-7609

| Building Subcode | | Electrical Subcode | Energy Subcode | | | | Fire Protection Subcode | | Mechanical Subcode | | Fuel Gas Subcode | Plumbing Subcode | 1 & 2 Family Dwelling | | Barrier Free (Sub 7) | | Rehab (Sub 6) | Effective Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BOCA | IBC | NEC | BOCA | CABO MEC | IECC | ASHRAE Std. 90.1 | BOCA | IBC | BOCA | IMC | IFGC | NSPC | CABO | IRC | CABO/ ANSI A117.1 | ICC/ ANSI A117.1 | updated yearly since 1998 | (start date of six month grace period) |
| 1975 | | 1975 | | | | | 1975 | | | | | 1975 | | | | | | 01-01-77 |
| 1976/S | | | | | | | 1976/S | | | | | | | | | | | 12-01-77 |
| | | | 1977 | | | | | | | | | | | | | | | 01-01-78 |
| 1978 | | 1978 | | | | | 1978 | | | | | 1978 | | | | | | 10-01-78 |
| 1981 | | 1981 | | | | | 1981 | | | | | 1980 | | | | | | 05-07-81 |
| 1983/AS | | | | | | | 1983/AS | | | | | 1981/82/S | | | | | | 02-22-83 |
| 1984 | | 1984 | | | | | 1984 | | 1984 | | | 1983 | | | | | | 08-06-84 |
| 1985/S | | | | | | | 1985/S | | 1985/S | | | | | | | | | 04-01-85 |
| | | | | | | | | | | | | | 1983 | | | | | 07-01-85 |
| | | | | | | | | | | | | 1984/85/S | | | | | | 02-03-86 |
| 1986/AS | | | | | | | 1986/AS | | 1986/AS | | | | | | | | | 09-22-86 |
| 1987 | | 1987 | | | | | 1987 | | 1987 | | | | | | | | | 04-01-87 |
| | | | | | | | | | | | | 1987 | 1986 | | | | "25/50 Rule" | 09-21-87 |
| | | | 1984 | | | | | | | | | | | | | | | 10-05-87 |
| 1988/S | | | | | | | 1988/S | | 1988/S | | | | | | | | | 06-20-88 |
| | | | | | | | | | | | | | 1987/88/A | | | | | 08-15-88 |
| | | | 1987 | | | | | | | | | | | | | | | 09-06-88 |
| | | | | | | | | | | | | 1988/S | | | | | | 02-06-89 |
| 1989/AS | | | | | | | 1989/AS | | 1989/AS | | | 1989/S | | | | | | 11-01-89 |
| | | | | | | | | | | | | | 1989 | | | | | 05-21-90 |
| 1990 | | 1990 | 1990 | | | | 1990 | | 1990 | | | 1990 | | | | | | 07-01-90 |
| 1991/S | | | | | | | 1991/S | | 1991/S | | | | | | | | | 03-04-91 |
| | | | | | | | | | | | | 1991/S | 1990/91/A | | | | | 05-20-91 |
| 1993 | | 1993 | 1993 | | | | 1993 | | 1993 | | | 1993 | 1992 | | | | | 05-01-93 |
| | | | | | | 1989 | | | | | | | | | 1992 | | | 07-01-95 |
| | | | | | | | | | | | | | | | | | 1998 | 01-05-98 |
| 1996 | | 1996 | 1993 | | | | 1996 | | 1993 | | | 1996 | 1995 | | | | (updated yearly) | 07-06-98 |
| | | 1999 | | | | | | | | | | | | | | | | 02-07-00 |
| | | | | | | | | | | 2000 | 2000 | | | | | | | 06-18-01 |
| | | | | | | | | | | | | 2000 | | | | | | 09-17-01 |
| | | | | 1995 | | 1999 | | | | | | | | | | | | 01-16-02 |
| | | | | | | | | | | | | | | | | 1998 | | 11-04-02 |
| | 2000 | 2002 | | | | | | 2000 | | | | | | 2000 | | | | 05-05-03 |
| | | | | | | | | | | 2003 | 2003 | 2003 | | | | | | 01-18-05 |
| | | 2005 | | | | | | | | | | | | | | | | 05-01-06 |
| | 2006 | | | | 2006 | 2004 | | 2006 | | 2006 | 2006 | 2006 | | 2006 | | | | 02-20-07 |
| | | | | | | | | | | | | | | | | 2003 | | 05-07-07 |
| | | 2008 | | | | | | | | | | | | | | | | 04-06-09 |
| | 2009 | | | | 2009 | 2007 | | 2009 | | 2009 | 2009 | 2009 | | 2009 | | | | 09-07-10 |
| | | 2011 | | | | | | | | | | | | | | | | 05-07-12 |
| | 2015 | 2014 | | | 2015 | 2013 | | 2015 | | 2015 | 2015 | | | 2015 | | 2009 | | 09-21-15 |

## PV System Grounding and Bonding

The topic of grounding and bonding of Photovoltaic Systems is ever changing. With an increase of AC arrays and self-grounding rail or rail less systems it always a good idea for a little refresher.

Article 690 of the NEC is where you will see the requirements for PV systems, and very early in the section, in 690.6(A), it states that article 690 for PV source circuits do not apply to AC modules. That tells me that all the grounding and bonding requirements go back to a chapter one through chapter three methods. So what are AC modules? These are the panels with micro-invertors attached to each panel. When installed, the equipment grounding conductor acts as it would for any other piece of equipment or appliance requiring no additional grounding or bonding for the panels or connection to a rail or rail-less system. Most phone calls to the code assistant unit are asking about inspectors requiring that the panels be bonded, but this requirement is negated when the specifications show that all panels and components for the arrays are listed for grounding purposes. The grounding is built in. Another call received questions lightning protection, and some state that in "this seminar" or reading "that author," I am told the rails should be additionally bonded and tied to an electrode system. To that the response is: lightning protection is not covered in the NEC, nor is it stated as a requirement which we can enforce. It is optional, just as an auxiliary grounding electrode is, as stated in 250.54 of the NEC.

DC modules are different and additional grounding and bonding is required and these requirements start in 690.47. The problem is the bonding/grounding can be obtained in many ways as stipulated in 690.47. A conductor run from the frame of an array can be connected with the equipment grounding conductor and the requirement is met. No additional ground rod needed. At a recent seminar during an IAEI meeting in North Jersey, a representative from a manufacture of invertors did a great presentation showing how adding an additional electrode can affect the invertor's capability to change the sine wave from DC to AC. It is always a great idea to ask for specifics on the grounding and bonding of individual systems and not categorize all as needing additional bonding or grounding.

The last and most controversial issue is bonding the grounded conductor at the disconnect. The typical utility-interactive roof mounted system is not considered a service nor does it require the neutral to be bonded. These are not separately derived, and when normal power is lost, the systems shut down. The neutral coming from the service panel is for voltage sensing to the invertor only. The neutral allows the invertor to sense the available incoming voltage with range parameters and shuts the invertor down at a loss or reduction of voltage of loss of a phase. Requiring someone to treat the hot tap or back feed to a disconnect as a service, could adversely affect the operation of the system.

Should you have any questions, you may contact me at (609) 984-7609.

Source: Dave Greenhill
Code Assistance Unit

## Certificate of Occupancy Relation to Hotels/Motels and Rooming/Boarding Houses

Just a friendly reminder—At N.J.A.C. 5:23-2.24(e), Conditions of certificate of occupancy, the rules require that the owner supply a photocopy of the certificate of registration issued by the Bureau of Housing Inspection for any hotel or multiple dwelling (defined as three dwelling units or more) before issuance of a certificate of occupancy. The Bureau of Housing Inspection recently moved to a new computer system. Soon, it will be possible for owners to apply for a certificate of registration online.

Similarly, no certificate of occupancy should be issued for any rooming or boarding house unless the owner provides the construction official with a copy of a license to own a rooming or boarding house issued by the Bureau of Rooming and Boarding House Standards. (See N.J.A.C. 5:23-2.24(d))

Please be sure that no certificate of occupancy is issued for a hotel, motel, multiple dwelling, rooming or boarding house unless this requirement is met. Should you have any questions, please feel free to contact the Bureau of Housing Inspection at (609) 633-6216 or the Bureau of Rooming and Boarding House Standards at (609) 984-1704.

Source: Code Assistance Unit
(609) 984-7609

## Optional Stand-by Generators

Since Super Storm Sandy, the number of stand-by generators being installed has been rapidly increasing and some common misconceptions need to be addressed. The first is the transfer switch and wiring to the transfer switch. There are manufacturers who install a 100 amp breaker in the generator, but because of the fuel selection, the wire size only needs to be rated at 90 amps. The code states that conductors are to be sized based on the overcurrent device they will be terminated to after all correction factors are applied. Table 310.15(B)(16) is used for final selection. Most believe that Table 310.15(B)(7) can be used which is an allowance for a reduction of wire size for 120/240-volt 3-wire dwelling services. This is not correct because the optional generator feed to the transfer switch does not fall under the parameters for this reduction allowance. This means that, for a generator that contains a 100 amp breaker, the wire size from the generator to the line side of the transfer switch will be #3 AWG Copper or #1 AWG Aluminum. A recent inquiry made to NFPA confirms this.

Next is the transfer switch itself and whether or not it needs to be service rated and if the neutral needs to be bonded. If the transfer switch and generator are sized to pick up the entire load and the transfer is ahead of the main disconnecting means, it now becomes the service disconnect and the panel being fed from the transfer switch is a remote panel board. This now requires an insulated grounded conductor and an equipment grounding conductor; the "SE" is no longer compliant. Also, the grounding electrode system will be moved from the existing service panel to the service-rated transfer switch. The Main Power feeder (from transfer to panel board) can be sized based on table 310.15(B)(7) because it falls under the parameters of the 310.15(B)7 allowance. In addition, the grounds and neutrals must be separated and isolated from one another.

Finally, the existing branch circuits and feeders which are allowed to be fed by an SE cable come into play. The code allows SE to be used with an uninsulated "grounded" conductor, where it terminates in "service" equipment. By definition, the remote panel is no longer considered "service" equipment, and if the range or dryer requires a neutral, the wiring to these appliances may need to be changed. If the equipment is straight 240 volts requiring only an equipment grounding conductor, the "SE" may remain.

Should you have any questions, you may contact me at (609) 984-7609.

Source: Dave Greenhill
Code Assistance Unit

## Contractors Being on Site for Inspections, Not Required

It has come to the Department's attention that a number of inspectors are placing what reasonable people might consider *unreasonable* demands on contractors. Specifically, the Department is receiving complaints of inspectors asking that contractors be on site for inspections without giving specifics as to when or where an inspection might take place. The regulations do not contain a requirement that the contractor be present for the inspection. If assistance is needed to perform the inspection or there is some other basis for asking the contractor to be there, then every effort should be made to set up a time. Both the contractor and the inspector have work to do. Let's be respectful of one another's time. And please, let's be reasonable.

Source: Office of Regulatory Affairs
(609) 984-7672

The Construction Code Communicator is an online publication of the New Jersey Department of Community Affairs' Division of Codes and Standards. It is typically published four times a year.

Copies may be read or downloaded from the division's website at: www.nj.gov/dca/divisions/codes.

Please direct any comments or suggestions to the NJDCA, Division of Codes and Standards, Attention: Code Development Unit, PO Box 802, Trenton, NJ 08625-0802 or codeassist@dca.nj.gov.

…and a special thanks to the…

**BUILDING SAFETY CONFERENCE OF NEW JERSEY COMMITTEE**

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*Department of Community Affairs*

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**Department of Community Affairs**
**Charles A. Richman, Commissioner**

**Volume 27, Number 3** **Fall 2015**

## Annual Permits - Refresher

Our office has gotten many questions over the past few months about the procedure, conditions and extent of annual permits, so it seems now may be a good time to give everyone a brief refresher. This article is just a summary- the requirements are fairly detailed and can be found in the UCC at N.J.A.C. 5:23-2.14(d) and 5:23-4.18(a)4. and 5.

Many municipal building departments issue annual permits. These permits are usually issued to hospitals and corporate entities with campus-style facilities that perform small construction or maintenance work on a frequent, if not continuous basis. It is important to note that the work performed must be done by qualified, full time employees of the facility, not contracted work for a specific project or projects.

Under these conditions, a local enforcing agency can issue an annual permit for the mutual benefit of the agency and the facility. In other words, the facility does not need to obtain a permit for every single job, but rather, for all the allowable jobs for a given year. They may also apply for an annual permit for just part of the work. The areas for which an annual permit may be granted are: building/fire (those areas are combined for this type of permit), electrical and plumbing. It is important to note that the applicant may apply for only a building/fire annual permit, but elect to apply for a "regular" electrical permit each time one is required. Of course, they may apply for an annual permit that covers all work of a minor nature for the year.

Does that mean that the permit holder gets a "pass" on the work they do? No. As alluded to above, there are conditions of having this special type of permit. First, the permit applicant must name at least one person (but no more than three) responsible for the work in any one given area and name all the people that will be performing the work. The applicant would need to provide some type of documentation to the local enforcing agency that person(s)

(*continued next page*)

***In This Issue***

(*Annual Permits – Refresher*)

named are qualified to perform the work in a code compliant manner; the decision to accept those names is up to the authority having jurisdiction. Also, a log of all work performed under the annual permit must be maintained on site and available for inspection with at least 24 hours' notice. The local enforcing agency issuing the permit must inspect the work at least twice per year with no more than six months between inspections. There are also limits on the type of work that can be performed under the annual permit which would exclude the construction of a new building or any work that would impact life safety systems, as well as lead or asbestos abatement. That list is illustrative, not exhaustive. Please refer to the UCC for the complete list.

So you've gotten a request for an annual permit. What now? The Construction Official would issue the annual permit after first receiving both the annual permit fee, established by the municipality, and the appropriate training fee that must be forwarded to the Licensing & Education office here at DCA. The training fee for these annual permits should not be confused with the permit surcharge fee. It is specific to the issuance of an annual permit. The fee is $140.00 per subcode area. The Construction Official must also review the scope of work and qualifications of the workers. He or she would then forward a copy of the permit showing the term of the permit and the subcodes for which the permit was issued to both the applicant and to the Licensing & Education office. We would then issue training identification numbers to the individuals named in the permit and they would be required to take at least 5 hours of code training relevant to the area in which they are named in the permit; i.e., carpenters take building, electrical workers take electrical, etc. The workers would complete the training through our code enforcement seminar programs as would any of our inspectors and officials.

The annual permit can be renewed each year. In order to do this, an application, accompanied by the payment of the permit and training fees for the following year, must be submitted to the Construction Official at least 60 days prior to expiration. When that request is received, the Construction Official should contact our office to ensure that the training requirement has been met. If it has and all other conditions of the permit have been met, it can be renewed. If the training has not been met, the permit cannot be re-issued.

Source: John Delesandro
Supervisor, Education and Licensing Units
(609) 984-7834

## One- and Two-Family Dwelling Subcode Coastal A Flood Zones Clarification

As you may already know, with the adoption of the 2015 International Residential Code (IRC), Coastal A zone flood hazard requirements now mimic V zone. However, the wording within the IRC can cause some confusion.

Item #1 in Section R322.2.1 (Elevation requirements) states, "Buildings and structures in flood hazard areas, including flood hazard areas designated as Coastal A Zones, shall have the lowest floors elevated to or above the base flood elevation plus 1 foot, or the design flood elevation, whichever is higher."

This implies that Coastal A zone still only requires elevation to the floor level. This is not the case as the charging text, R322.2 (Flood hazard areas--including A Zones) states that Coastal A Zones are subject to the requirements of Section R322.3 (Coastal high-hazard areas--including V Zones and Coastal A Zones, where designated). Therefore, the more restrictive of the section requirements applies.

Section R322.3, as amended by NJAC 5:23-3.21, states, "Buildings and structures constructed in whole or in part in coastal high-hazard areas and coastal A Zones, where designated, shall be designed and constructed in accordance with Section R322.3.1 and ASCE 24."

Lastly, Section 4.4 of the 2014 ASCE 24 states that the lowest floor shall be elevated in conformance with the minimum requirements of Table 4-1. This is where it states that Coastal A zone (along with V zone) is required to have the bottom of the lowest supporting horizontal structural member elevated to base flood elevation + 1 foot or design flood elevation, whichever is higher.

Therefore, even though R322.2.1 states "lowest floor," the charging text of R322.2 sends the user to R322.3 for Coastal A flood hazard zone and the required elevation to bottom of the lowest supporting horizontal member applies.

Source: Rob Austin
Code Assistance Unit
(609) 984-7609

## Corrections to the New Jersey Editions of the 2015 International Building and Residential Codes

IBC/2015

1 – *Limited Area Sprinkler Systems at Section 903.3.8*

Please be advised that there is an error in the New Jersey edition of the 2015 International Building Code (IBC.) The Uniform Construction Code, at N.J.A.C. 5:23-3.14(b)8.xii., indicates that Section 903.3.8, Limited Area Sprinkler Systems, is to be deleted and replaced. The subsections of 903.3.8, which should have been deleted, remain in the printed version of the New Jersey edition. Subsections 903.3.8.1 through 903.3.8.5 should be deleted. These subsections are not included in the IBC as adopted for use in New Jersey.

2 - *LULAs, 3,000 sf and Chapter 11 of the IBC/2015*

It has come to our attention that there is an error in the text of the recently-adopted amendments to N.J.A.C. 5:23-3.14. Specifically, at N.J.A.C. 5:23-3.14(b)10.vi., the text that we inserted reads as follows:

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

A subordinate section, 1104.4.2.2, as adopted, would allow the use of a limited use/limited application (LULA) elevator in a large building without restriction. This is contrary to the enabling statute, N.J.S.A. 52:32-5, which sets a 3,000 square feet threshold for providing access, and contradicts the adopted text at N.J.A.C. 5:23-3.14(b)10.xli. which would limit the use of such elevators in large buildings to floors of less than 3,000 square feet. (See Section 1109.7, Exception 2.3 within N.J.A.C. 5:23-3.14(b)10.xli.)

To eliminate this internal contradiction in the adopted rules, and for consistency with the statute, we should have added the 3,000 square feet restriction to Section 1104.4.2.2, as adopted at N.J.A.C. 5:23-3.14(b)10.vi. as follows:

> 1104.4.2.2 A limited use limited application elevator that complies with ANSI/ASME A17.1 adopted by reference in the building subcode may be used to provide a vertical accessible route to [the] **a** floor or mezzanine**, of less than 3,000 square feet,** provided that the travel distance does not exceed 25 feet.

With the two conflicting rules, the one that limits the use of LULAs to floors or mezzanines of less than 3,000 square feet will govern. We will be submitting a proposed rule amendment to the Office of Administrative Law to clean up this language. In the meantime, code officials should restrict the use of LULAs in large buildings (10,000 sq ft or more) to floors of less than 3,000 sq ft in accordance with Section 1109.7, Exception 2.3 of the New Jersey edition.

IRC/2015

3 – *Swimming Pools, Spas and Hot Tubs, Section R326*

The amendment at NJAC 5:23-3.21(c)xlvi contain two typographical errors. More specifically, item 5.3 regarding Aquatic Recreation Faculties should read as follows:

> 5.3 Sections 609.2, Number of fixtures, 609.3, Showers, 609.4, Soap dispensers, [606.5] **609.5**, Toilet tissue holder, 609.6, Lavatory mirror, [606.7] **609.7**, Sanitary napkin receptacles, 609.8, Sanitary napkin dispensers, and 609.9, Infant Care, shall be deleted.

This correction appeared in the November 16, 2015 edition of the *New Jersey Register* [47 N.J.R. 2753(a)]; updated pages within the One- and Two-Family Dwelling Subcode, NJAC 5:23-3.21, will be sent as part of your next update.

All corrections listed above are available on the Division's website. The replacement pages for your loose-leaf NJ IBC and IRC can be found at http://www.nj.gov/dca/divisions/codes/codreg as "Corrected pages" under the Building and One- and Two-Family Dwelling Subcodes, respectively.

Source: Code Assistance Unit
(609) 984-7609

## 2015 IECC Residential Update

So how effective is the move from the 2009 International Energy Conservation Code (IECC) to the 2015 IECC going to be in relation to homes? The short answer per Pacific Northwest National Laboratories (PNNL) is that it'll provide a simple payback of 3.6 years for Zone 4 and just 2.6 years for Zone 5. Of course, there are many assumptions made and many variables considered. For the full report, please visit http://www.pnnl.gov/main/publications/external/technical_reports/PNNL-23940.pdf.

These paybacks are a result of the many updates from the 2009 IECC to the 2012 IECC and again to the 2015 IECC. The following chart demonstrates the major changes in mostly insulation upgrades, but you will also see more controls and tighter homes.

**Table 2.1**. Comparison of Insulation Requirements Analyzed for the 2009 and the 2015 IECC

| Climate Zone | IECC | Ceiling (R-value) | Skylight (U-factor) | Fenestration (Windows and Doors) | | Wood Frame Wall (R-value) | Floor (R-value) | Basement Wall (R-value) | Slab* (R-value and depth) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | U-factor | SHGC | | | | |
| 4 | 2009 | 38 | 0.6 | 0.35 | NR | 13 | 19 | 10/13 | 10, 2 ft |
| | 2015 | 49 | 0.55 | 0.35 | 0.40 | 20 | 19 | 10/13 | 10, 2 ft |
| 5 | 2009 | 38 | 0.6 | 0.35 | NR | 20 | 30 | 10/13 | 10, 2 ft |
| | 2015 | 49 | 0.55 | 0.32 | NR | 20 | 30 | 15/19 | 10, 2 ft |

*The first number is R-value. The second value refers to the vertical depth of the insulation around the perimeter.
NR = not required
SHGC = solar heat gain coefficient

**Table 2.2**. Comparison of Additional Code Requirements Analyzed for the 2009 and the 2015 IECC

| Measure Description | 2009 IECC | 2015 IECC |
|---|---|---|
| Insulation Requirements for Return Ducts in Attics | R6 | R8 |
| Supply ducts in attics | R-8 | R-8 |
| Building envelope sealing | Caulked and sealed, verified by visual inspection against a more detailed checklist | Caulked and sealed, verified by visual inspection and a pressure test against a leakage requirement |
| Ducts and air handlers | Sealed, verified by visual inspection, and pressure tested, or all ducts must be inside building envelope | Sealed, verified by visual inspection, and pressure tested against a leakage requirement, or all ducts must be inside building envelope |
| DHW Pipe Insulation Requirements | No pipe insulation | R-3 except where pipe run length is below a diameter-dependent threshold<br>Insulated 3/4" pipes<br>Uninsulated 1/2" and kitchen pipes |
| Demand-Activated Control for Recirculating Systems | No DHW recirculation system | DHW recirculation system included |
| Outdoor Air Temperature Setback Control for Hot Water Boilers | No setback | Temperature setback based on Outdoor Air Temperature |
| Certificate of insulation levels and other energy efficiency measures | Yes | Yes |
| Tested Max Air Leakage Rate (ACH50) | NR | 3 |

Source: PNNL-23940, Battelle

(*continued next page*)

(*2015 IECC Residential Update*)

A more specific, but still general, overview of the differences between the editions of the IECC follows:

General Requirements

- Section R401.2 (2009 and 2012) are essentially the same with regard to compliance paths. 2015 adds the energy rating index (ERI) as a third option for compliance that will be found under a brand-new section for 2015: Section R406.
- R402.1 (2009 and 2012) have essentially the same text pertaining to the sections for thermal envelope compliance; however, 2015 allows for the separation of low-energy buildings.
- Sections R402.1.1 through R402.1.5 have been renumbered; there is also a new section and some new text.
- Section R402.1.1 (2009 and 2012) have essentially the same reference to complying with the thermal envelope requirements of Table 402.1.1. This section is replaced in 2015 with new text addressing vapor retarders via Section R702.7 of the International Residential Code or Section 1405.3 of the International Building Code, if applicable. The original text for Section R402.1.1, found in 2009 and 2012, has been shifted to Section R402.1.2 in the 2015.
- Table 402.1.1 “Insulation and Fenestration Requirements by Component” appears in all versions, except that in 2015 it is now labeled Table R402.1.2. The R-value and U-factor requirements have changed between versions, but were not being analyzed as a part of this study.

Specific Insulation Requirements

- Section R402.2 is just a heading in 2009, but in 2012 and 2015 this section addresses insulation requirements.
- R402.2.1: 2009, 2012 and 2015 all include text that addresses exceptions for uncompressed insulation that allows for a reduction in R-value. However, 2015 incorporates a caveat based on a percentage of ceiling area requiring insulation and still allows for a reduction from R-49 insulation level requirements to R-38 if the full height of uncompressed insulation extends over the wall top plate at the eaves. This reduction still does not apply to the U-factor alternative approach.
- Section R402.2.3 (2009) has the same text as Section R402.2.4 in 2012 and 2015 and addresses access hatches and doors from conditioned spaces to unconditioned spaces. For 2015, there is an exception for vertical doors to meet fenestration requirements.
- Section R402.2.3 (2012 and 2015) addresses air permeable insulation. This concept is completely missing from the 2009.
- Section R402.2.4 2009 addresses mass walls much in the same way Section R402.2.5 does for 2012 and 2015. 2015 does add the flexibility of any other wall types that have a specific heating capacity.
- R402.2.5 (2009) and Section R402.2.6 (2012 and 2015) all have similar text regarding steel-framed walls. The label for Table R402.1.3 (U-factor requirements) in 2012 changes to Table R402.1.4 in 2015.
- Section R402.2.6 (2009), Section R402.2.7 (2012) and Section R402.2.8 (2015) are essentially the same text; they pertain to floor insulation being installed to maintain permanent contact with the underside of subfloor decking. However, the 2015 provides an exception depending on assembly.
- Section R402.2.7 (2009) addresses basement wall insulation requirements and is connected to Section R402.2.8 (2012) and Section R402.2.9 (2015).
- For 2015, Section R402.2.7 is new text that addresses continuous insulation and exterior walls.
- Section R402.2.8 (2009) addresses slab-on-grade floor insulation requirements and is connected to Section R402.2.9 (2012) and Section R402.2.10 (2015).
- Section R402.2.9 (2009) addresses crawlspace insulation and sealing. It shifts to Section R402.2.10 (2012) and then to Section R402.2.11 (2015).
- Section R402.2.10 (2009) provides an exception for the horizontal portion of the foundation that supports masonry veneer. This corresponds to Section R402.2.11 (2012) and Section R402.2.12 (2015).
- Section R402.2.11 (2009) pertains to ceiling and wall insulation for thermally-isolated sunrooms. Section R402.2.12 (2012) and Section R402.2.13 (2015) have exceptions that were introduced in the 2012 version.

(*continued next page*)

(*2015 IECC Residential Update*)

Fenestration

- Section R402.3 is just a heading in 2009, but in 2012 and 2015 new text has been added to list specific fenestration requirements and sections of the code. This section remains the same across the board except for:
    - Section R402.3.2 (Glazed fenestration SHGC): 2009 and 2012 have the same text; for 2015, dynamic glazing is now included as part of the section.
    - Section R402.3.5 (Thermally isolated sunroom U-factor): All three versions address sunrooms, but with subtle differences across the board.

Air Leakage

- This section is just a heading in 2009, but in 2012 and 2015, new text has been added to list specific code sections that address air leakage reduction requirements. 2009 does not have sections labeled 402.4.1.1 or 402.4.1.2. NJ maintains the 2009 allowance to do a visual inspection, testing method or a combination of the two.
- Section/Table 402.4.1.1 (2012 and 2015) pertains to visual inspection of air sealing, air barriers and insulation installation corresponds to Section/Table R402.4.2.2 (2009) with minor differences.
- Section 402.4.1.2 (2012 and 2015) pertains to envelope testing. There is a subtle difference between 2012 and 2015 in that 2015 specifically states that, if testing is conducted, it should be in accordance with ASTM E779 or E1827.
- The major differences between Section 402.4.2.1 (2009) and Section 402.4.1.2 (2012 and 2015) are the decreases in ACH50 from a base of 7ACH50 for all climate zones in 2009 to 3ACH50 for zones for NJ in 2012 when the testing option is chosen. 2015 is the same as 2012.
- Section R402.4.2 (2009) is just a heading that outlines compliance to either Section 402.4.2.1 (2009) or 402.4.2.2 (2009), which then are shifted to new sections in 2012.
- Section R402.4.3 (2009) addresses wood-burning fireplaces, as does Section 402.4.2 (2012 and 2015); however, gasketed doors are required in 2009, but they are not mentioned in 2012. Fireplace doors reappear in 2015 as an option.
- Section R402.4.4 (2009), which addresses fenestration air leakage, corresponds to Section R402.4.3 (2012 and 2015).
- Section R402.4.5 (2009), which addresses air leakage at recessed lighting installed in the building thermal envelope, corresponds to Section R402.4.4 (2012) and Section R402.4.5 (2015), although some text ("air movement from the conditioned space to the ceiling cavity") was removed from 2009 to 2012.

The above also applies to the application of the 2015 International Residential Code (IRC) now that Chapter 11 of this code mimics the IECC (each section in the IRC cross references the IECC).

Source: Rob Austin
Code Assistance Unit
(609) 984-7609

## Violations Found in Work that Does Not Require a Permit

A question has arisen as to how to handle a violation of the Uniform Construction Code (UCC) when the work itself does not require a permit. As many will remember from their rehab subcode training, the fact that no permit is required does not eliminate the need for a project, however small, to comply with the applicable requirements of the UCC. (See N.J.A.C. 5:23-2.2(b)) The replacement of a toilet in a residence does not require a permit, but the new toilet must be a 1.6 gallon per flush toilet. On a recent trip around town, a code official observed replacement steps being built at the front of a house. This project is considered ordinary maintenance and does not require a permit. But the new steps did not conform to the applicable requirements of the UCC.

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(*Violations in Work that Does Not Require a Permit*)

How should this be handled administratively? A Notice of Violation and Order to Terminate should be issued to the homeowner. An inspection should be performed to confirm that the violation has been abated within the timeframe specified in the Notice. If the violation has not been abated, then a Notice and Order of Penalty should be issued. If the violation has been abated, then a Certificate of Approval should be issued. A note should be written in the "Description of Work/Use" area on the form describing the work inspected and recording the fact that this Certificate is issued to document the abatement of a violation in work that did not require a permit. Because there is no permit, and the UCC does not contemplate issuance of a certificate unless it is to close out a permit, this is somewhat contrived. But it creates evidence, for the files, of the existence of a violation and its abatement.

Source: Code Assistance Unit
(609) 984-7609

## Quarterly State Training Fee Report Information

Most of you know me because I call about monthly building permit reports. You may now get a call from me about training fee (a.k.a. surcharge) reports as well. These reports are submitted quarterly to the DCA along with a check. The report contains the volume of work for new construction and addition permits as well as the dollar amount for alteration permits. The quarterly report should also clearly show the amount of activity exempted from fees.

Here are some tips regarding the quarterly reports:

- The quarterly report and check are due on the 10th of the month after the quarter ends. I will call after a few weeks and a letter will be sent a few weeks after that.
  - The first letter to the Construction Official goes out 45-60 days after the quarter ends.
  - The second letter to the Construction Official and the Mayor goes out about 30 days after the first letter.
- You must send the quarterly report ***and*** the check. If either one is missing, you are delinquent.
- The report must be signed and dated or it will not be accepted.
- ***Do not*** staple the check to the report.
- You can fax or email the report. Make sure you include my attention on the fax.
- ***Do not*** send vouchers. We ***do not*** accept them. They will be returned.
- Current Training Fee Rates:
  - .00371 per cubic foot volume for new construction and addition permits.
  - .0019 per dollar of construction for alteration permits.
  - Demolition permits do not get charged a training fee.
- Check the report before you send it. Do the math. If you have questions, call me. I can explain it to you.
- Try not to combine other things with the quarterly checks. If payments are combined, document them on the check stub.
- Even though the fiscal office may send the check, it is the responsibility of the Construction Official to make sure that the numbers add up and the DCA receives the report and check in a timely manner.
- I am here to help. If you have problems, questions or concerns, then please do not hesitate to call.

Please send the quarterly reports and checks to:

State of New Jersey
Department of Community Affairs
101 S. Broad St.
PO Box 802
Trenton, NJ. 08625
Attn: Charles Pierson Jr.

Source: Charles Pierson Jr.
Division of Codes and Standards, Director's Office
Phone: (609) 292-7899; Fax: (609) 633-6729; Email: Charles.Pierson@dca.nj.gov

## Independent Means of Egress for Group R-5 Buildings

The Department has received numerous inquiries regarding the means of egress requirements for Group R-5 buildings. Specifically, the question that arises is: "Can a detached two-family dwelling with a shared common entry foyer as its only means of egress be a Group R-5 occupancy constructed in accordance with the one- and two-family dwelling subcode?"

The answer is: No. If the detached two-family dwelling has a shared common entry foyer as its only means of egress, the occupancy classification is Group R-3; it must comply with the building subcode (N.J.A.C. 5:23-3.14).

In accordance with N.J.A.C. 5:23-3.21(b), the provisions of this subcode shall apply to detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height **with a separate means of egress serving each dwelling unit and their accessory structures**. Furthermore, in Section 310.1 of the 2015 International Building Code (New Jersey Edition), entitled "Residential Group R", a Group R-5 building is defined as "Detached one- and two-family dwellings not more than three stories in height ***with a separate means of egress*** and multiple single-family townhouses not more than three stories in height ***with a separate means of egress*** designed ***and*** constructed in accordance with the one- and two-family dwelling subcode." (emphasis added) Therefore, in order to be a Group R-5 occupancy, each dwelling unit must be provided with an egress door directly to the exterior of the building.

Source: Marcel Iglesias
Code Assistance Unit
(609) 984-7609

## Customer Owned Propane Tanks

The propane industry has reported that they have noticed more customer-owned propane tanks. This trend has some code implications. The general case for structures that are supplied with propane is that the propane supplier owns the tank. However, there seem to be three trends that are driving more customers to purchase their own tanks.

The first reason is that, because propane prices have climbed in recent years, customers are more interested in doing comparison shopping. Under New Jersey Law, a propane supplier may not fill a tank that is owned by another supplier. In an effort to be able to buy propane from whomever they want, many consumers are choosing to buy their own tanks. A second trend is the emergence of home generators. In areas without natural gas, generators are often fueled with propane. A third trend is that some of the bigger box stores are now selling propane tanks. This has given consumers more direct access to the product. Up until now, most propane tanks were sold to the customer through the supplier. In many cases, the supplier would then outline the benefits and drawbacks to customer-owned tanks allowing consumers to make a more informed decision about container ownership.

Customer-owned propane tanks are subject to the same code requirements that supplier-owned tanks are subject to. This means that the tank must be marked with "propane" and, for tanks that have a capacity of over 250 gallons, they should also have an emergency contact number on the tank. For underground tanks, the tank must have cathodic protection with a means for periodically testing the system.

In addition, when a customer chooses to own a container, the customer bears the maintenance responsibility for that container. For above ground containers, this means that the container must be properly painted to protect it from external corrosion. Portable containers, which are constructed to the Federal Department of Transportation specifications, must be periodically tested and recertified. Other items that often need to be periodically maintained are the rain cap for the relief valve outlet (this is usually a rubber cap that goes over the relief valve to keep ice and debris from clogging the relief valve outlet), and the foundation for the container (for smaller containers these foundations do not extend below the frost line and may settle over time). Underground tanks, as mentioned above, must have a cathodic protection system which is subject to periodic testing requirements. Therefore, the customer must arrange for the containers cathodic protection system to be periodically tested. Customer-owned tanks must also comply with the placement requirements of the code and must be the proper distance from buildings, building openings and ignition sources such as air conditioners, electric meters, etc.

Questions that consumers have about their responsibilities for the LPG tank that they own can be directed to the Department of Community Affairs LP-Gas Safety Unit at (609) 633-6224.

Source: LP-Gas Safety Unit
Bureau of Codes Services

## Accessible and Type A Dwelling Units

How many Type A dwellings units are required in a building with four or more dwelling units? What features may be adaptable within the Type A dwelling unit? These questions continue to be asked of the Code Assistance Unit. Let me take this opportunity to straighten out the requirements for accessible and Type A dwelling units.

New code, new code references.

With the adoption of the International Building Code/2015 (IBC/2015), Chapter 11 has become the Barrier Free Subcode. The previous amendments at NJAC 5:23-7.1 through 7.14 have now been incorporated into NJAC 5:23-3.14 to complete New Jersey's accessibility requirements with Chapter 11 of the IBC/2015 (minus the recreation portions in NJAC 5:23-7.16 through 7.32).

What is the difference between accessible and Type A?

A Type A dwelling unit is a dwelling unit that meets Section 1003 of the ICC/ANSI A117.1-2009 (ANSI/2009), as amended by Chapter 11 of the IBC/2015 at NJAC 5:23-3.14(b)10. This unit is a dwelling unit with an accessible entrance, accessible clear floor space, and accessible route into and through the dwelling unit, and adaptable features in the kitchen and bathroom. A combination of Chapter 11 of the IBC/2015 and the ANSI/2009 specify that a Type A dwelling unit must have (1) an accessible entrance, (2) an accessible interior route throughout the dwelling unit, (3) one full adaptable bath on an accessible route, (4) maneuvering space at all doors, and (5) adaptable features in the kitchen and bathroom.

An accessible dwelling unit is a dwelling unit that meets Section 1002 of ANSI/2009. As with a Type A dwelling unit, an accessible dwelling unit must have an accessible entrance and an accessible route into and throughout the dwelling unit. In an accessible dwelling unit, however, the toilet and bathing facilities must comply with general requirements for toilet room and bathing facilities that are in ANSI/2009, Section 603 through Section 610 inclusive. Similarly, kitchens are required to comply with the general requirements in ANSI/2009 at Section 804, kitchens and kitchenettes, and must also provide one 30-inch long work surface that meets the requirements of Section 902, dining surfaces and work surfaces, regarding clear floor space and height. Finally, storage facilities must also meet the general requirements in ANSI/2009, which are at Section 905, for clear floor space, height and operable controls.

Which dwelling units are required to be adaptable?

1. In a building with four or more dwelling units, if the building has an elevator, all (100 percent) of the dwelling units must be Type A. [IBC/2015, Sections 1107.6.2, 3 and 4]
2. In a building with four or more dwelling units, if there is no elevator, all (100 percent) of the ground-floor dwelling units must be Type A. [IBC/2015, Sections 1107.6.2, 3 and 4]
3. Ground-floor dwelling units: In a building with dwelling units, the first floor containing dwelling units must be accessible and must contain Type A dwelling units, regardless of whether that floor is at grade. [IBC/2015, Sections 1107.6.2, 3 and 4] Keep in mind, a building may have more than one ground floor due to sloping grade.
4. Generally speaking, townhouses are exempt from Chapter 11 of IBC/2015. There is one exception: Townhouses for which credit as a low or moderate income unit (COAH credit) is awarded are required to comply—and are discussed below. A townhouse is a single dwelling unit with two or more stories of dwelling space, exclusive of basement or attic, where each dwelling unit extends from foundation to roof. This dwelling unit is to have an independent entrance that serves one dwelling unit only and that is at or near grade; most or all of the sleeping rooms are on one story; and most or all of the remaining habitable space, such as kitchen, living, and dining areas, are on another story. [IBC/2015, Sections 1103.2.3.1 and 1107.6.5]
5. What level of accessibility is required for a townhouse that has "COAH credit?" When a townhouse, or a multistory dwelling with fewer than four dwelling units in a single structure, is being constructed with credit as low or moderate income housing, the dwelling unit must comply with the Chapter 11 of IBC/2015. There are two unique requirements that apply to these buildings: each dwelling unit must have a room that could be used as a bedroom

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(*Accessible and Type A Dwelling Units*)

on the entry level; and they may have either an accessible or an adaptable entrance. If an adaptable entrance is provided, the plans for making the adaptation to an accessible dwelling unit must be submitted and released through the standard plan review process. The funds to effect the adaptation of 10% of the entrances that are not accessible must be escrowed with the municipality. *Note: COAH is part of the Fair Housing Act Administration and can be reached by visiting http://www.nj.gov/dca/services/lps/hss, phone at (609) 292-3000 or email at LPSmail@dca.state.nj.us.*

What features in the kitchen may be adaptable?

1. Adaptable work surface: There must be a 30-inch length of counter that is either set at 34 inches or that can be adjusted to an accessible height. The base cabinets in this section must be removable and the floor must be finished all the way to the wall. The 30-inch section of the counter does not have to be precut; it can be "replaceable as a unit." This means that it must be able to be cut and either lowered or replaced. [ANSI/2009, Sections 1003.12.3.1 and 1003.12.3.2, as amended at IBC/2015, Section 1101.2, items 15 & 16]
2. Kitchen cabinets: Exempt as per the exception at ANSI/2009, Section 1003.14.
3. Kitchen sink: This is almost a combination of the above two. The cabinets below the sink must be removable and the floor must be finished all the way to the wall. Also, the sink and the counter are required to be adjustable or replaceable as a unit to an accessible height provided; rough-in plumbing that allows connections of supply and drain piping for sinks mounted at heights of 29 inches must be provided. [ANSI/2009, Sections 1003.12.4.1 and 1003.12.4.2, as amended at IBC/2015, Section 1101.2, items 17 & 18]

What features in the bathroom may be adaptable?

1. At least one bathroom on the accessible route is to comply with ANSI/2009, Section 1003.11.2. In all bathrooms, grab bars do not have to be installed, but the wall must be reinforced to permit their later installation as per ANSI/2009, Section 1003.11.1; this applies to shower seat reinforcement also.
2. The threshold in a transfer shower may be adaptable as long as the adaptation can be made easily without undertaking a construction project. [ANSI/2009, Sections 1003.11.2.5.2, as amended at IBC/2015, Section 1102.1, item 14.2]
3. The mirror may be installed at a standard height as long as it is attached in such a way that it can be lowered without damaging the wall. Since the words "accessible lavatory" are used. The 40" maximum is not required until the lavatory is made accessible. [ANSI/2009, Section 1003.11.2.3]
4. A vanity may be installed underneath the lavatory as long as it can be removed without requiring the removal or replacement of the lavatory. [ANSI/2009, Section 1003.11.2.2]

Maneuvering Space at Doors.

There have been some projects that have been brought to the Department of Community Affairs' attention in which no maneuvering space has been provided at doors. Maneuvering space is critical to the usability of the dwelling unit. The requirements can be found in Section 1003.5, which requires compliance with Section 404, minus six exceptions.

In short, only those features that are provided with adaptive options may be adapted.

Lastly, please note that there is no reference to Type B dwelling units within this article. This is because the allowance of this type of dwelling unit is not permitted by NJAC 5:23.

Source: Rob Austin
Code Assistance Unit
(609) 984-7609

## Foundations in Coastal A Flood Zones

The adoption of the 2015 International Residential Code (IRC) has aligned the requirements for Coastal A flood hazard zones with V flood hazard zones. This was already the case for International Building Code (IBC) structures prior to the adoption of the 2015 edition. In either code, the ASCE 24-2014 should be used in the design of the structure's foundation.

Typical foundations in Coastal A and V flood hazard zones will result in piles being installed. This will always be the case in V flood hazard zones since the National Flood Insurance Program (NFIP) rules require the foundation to be open (minus breakaway walls). The NFIP rules, however, do not require a foundation in the Coastal A flood hazard zone to be open. This means that, if someone wanted a shallow foundation constructed of masonry in lieu of a pile foundation, it is still possible per Section 4.5.1.2 of the ASCE 24-2014.

Whether or not a shallow masonry foundation in a Coastal A flood hazard zone is cost effective (versus a pile foundation) is not a code question. But if this type of shallow foundation is chosen, it must have sufficient strength to resist the anticipated combination of flood loads, including the hydrostatic, hydrodynamic, wave and debris loads.

Source: Rob Austin
Code Assistance Unit
(609) 984-7609

## Lateral Deck Connection: Reminder – UPDATE

It has come to the Department's attention that there has been some confusion as to when lateral deck load connections, like the ones illustrated in Figures R507.2.3(1) and R507.2.3(2) of the International Residential Code/2015 (IRC/2015), are required.

The specific deck attachments for lateral loads demonstrated in these figures, as referenced by Section R507.2, Deck ledger connection to band joist, of the IRC/2015, are not required. These figures are rooted in Federal Emergency Management Agency (FEMA) Publication 232, entitled "Homebuilders' Guide to Earthquake Resistant Design and Construction," and are linked to a seismic requirement. As amended by NJAC 5:23-3.21, Section R301.2.2, Seismic provisions, of the IRC/2009, states "Detached one- and two- family dwellings and attached single family townhouses are exempt from the seismic requirements of this code."

Based on this, these lateral deck attachments are not required for a detached one- or two- family dwelling or attached single family townhouse in New Jersey that is designed and built in accordance with the IRC/2015. However, decks supported by attachment to an exterior wall must be positively anchored to the primary structure and designed for both vertical and lateral loads as per the Section R507.2, Decks. The specific details from R507.2.3(1) and R507.2.3(2) are one means to comply with this requirement, but they are not the only option.

Source: Marcel Iglesias
Code Assistance Unit
(609) 984-7609

## Buildings/Structures Subject to Wind-Borne Debris & Hurricane-Prone Regions Requirements

As reported in the Spring 2015 edition of the Construction Code Communicator, the adoption of the 2015 International Building Code (IBC) and International Residential Code (IRC) has placed New Jersey outside the zone(s) for needing opening protection in accordance with Sections 1609.1.2 and R301.2.1.2, respectively. This is true for all residential and general use commercial buildings. However, the opening protection requirements of Section 1609.1.2 still apply to buildings/structures listed in Table 1604.5. Health care facilities in "Risk Category III" and all buildings in "Risk Category IV" within one mile of the mean high water line of the Atlantic Ocean and having an ultimate design wind speed of 130 miles per hour or greater are required to have openings that are protected from wind-borne debris. These buildings are typically hospitals, emergency management facilities, etc.

Source: Code Assistance Unit
(609) 984-7609

## Enclosed Space Beneath One- and Two-Family Dwellings

A new requirement is now in place in the one-and two-family dwelling subcode at Section R302.13, "Fire Protection of Floors," of the International Residential Code/2015 (IRC/2015). Where floor assemblies are not required to be fire-resistance rated elsewhere in the code, they must be protected in accordance with this new section. In short, these floors must be protected with 1/2-inch gypsum wallboard, 5/8-inch wood structural panels or an equivalent that is attached to the underside of the floor framing member.

The code allows many different penetrations or openings. See Section R302.13 for a full list.
The following are four conditions that would not require protection on these floor assemblies:
1. When the space underneath is protected with Section P2904, NFPA 13D or an equivalent fire sprinkler system.
2. Spaces located directly over a crawl space not intended for storage or fuel-fired appliances.
3. Portions can be unprotected where the aggregate area of the unprotected portions does not exceed 80 square feet per story or when fireblocking is installed in accordance with Section R302.11.1 along the perimeter of the unprotected portion to separate it from the rest of the floor.
4. When dimensional lumber or structural composite lumber that is at least 2-inch by 10-inch nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance are installed.

Historically, the floor-types that this really applies to are located above basements and crawlspaces. Based on this, a situation has come to our attention with homes that are requiring elevation due to flood plain requirements (homes constructed on piles). What happens when walls are constructed, solid or breakaway type (both with flood vents)? The same protection of the floor assembly addressed above is required when any area is fully enclosed and the area is over 80 square feet. Only the area of the fully- enclosed space (inside the four (4) walls) is required to be protected, not the entire space below the elevated home. When the space under the house is completely enclosed, the entire floor assembly will require this membrane protection. When the entire area under the elevated home is open, no protection is required per this section.

What if the space created constitutes a garage or carport?

We already know from above that fully-enclosed spaces require protection pursuant to R302.13 unless one of the exceptions above is met. But when this space is used for parking, we need to take another look at the code requirements.

Diving in further, we must look at Section R302.6, Dwelling-garage fire separation, and Section R309, Garages and carports. As per Section R309.2, a carport is a parking area for automobiles or other vehicles, including watercraft, enclosed by two or fewer walls; when a third wall is proposed, the parking area is now a garage. In new construction, this garage would no longer need to meet R302.13. As stated above, R302.13 applies to assemblies that are not required to be fire-resistance rated elsewhere in the code. The garage would be subject to the requirements of Section R302.6 and would require a one-hour floor/ceiling rating created by a listed assembly or by compliance with Formal Technical Opinion (FTO)-13. Those existing homes being elevated to a mean height over 35 feet would also have to meet the one-hour rating or FTO-13 per Bulletin 13-1A.

*Links to references above:*

- *IRC/2015 (R302, R309, P2904) -- http://codes.iccsafe.org/app/book/toc/2015/New_Jersey/residential/index.html*
- *NFPA 13D -- http://www.nfpa.org/codes-and-standards/free-access*
- *FTO-13 -- http://www.nj.gov/dca/divisions/codes/publications/pdf_fto/fto_13.pdf*
- *Bulletin 13-1A -- http://www.nj.gov/dca/divisions/codes/publications/pdf_bulletins/b13_1A.pdf*

Source: Michael Whalen
Code Assistance Unit
(609) 984-7609

## Bulletin/FTO Update

With the adoption of the 2015 I-Codes and the 2014 NEC, we currently are in the process of reviewing all the UCC Bulletins and Formal Technical Opinions (FTO) and updating them, as needed. The newest and revised bulletins are:

- 15-4 -- Energy Subcode Compliance
- 15-3 -- Group Designations for Residential & Institutional Occupancies
- 15-2 -- Adopted Codes, Standards and Recommended Practices Referenced Under Informational Notes of the National Electrical Code 2014
- 05-2 -- Seismic Hazard Maps
- 03-5 -- Special Inspections
- 03-4 -- Wind Speed Maps
- 94-8 -- Ground Snow Loads

These are just the ones we know for sure are new or are being revised. There may be more, but only time/review will tell.

NOTE: Bulletins and FTOs that have updated code references will not be republished and will be posted on our web site only. Bulletins and FTOs that are new or need extensive revisions will be mailed as part of your update package through the subscription service at a later date and placed on our web site.

As always, each bulletin and FTO will been placed on the Internet, complete with up-to-date code references and new revised dates or updated code reference dates, so you can tell what is old, what is new, or what was updated to reflect current model codes. So please visit http://www.nj.gov/dca/divisions/codes/resources and view, print, download, etc. the revised/updated bulletins and FTOs to update your UCC.

Source: Code Assistance Unit
(609) 984-7609

## Chimney Liner Requirement – Rehab

The Code Assistance Unit has received many questions regarding whether a chimney liner is required when a furnace, boiler or water heater is replaced in a one- or two-family dwelling.

Replacing a furnace, boiler or water heater in an existing one- and two- family dwelling falls under the Rehabilitation Subcode, NJAC 5:23-6; this work is typically classified as “Renovation” by definition. More specifically, NJAC 5:23-6.5(h) refers you to NJAC 5:23-6.8, the Residential Materials and Methods. Here, you find that NJAC 5:23-6.8(h)14 requires compliance with all portions of Chapter 24 from the 2009 International Residential Code (IRC) that pertains to gas equipment and there are many sections that refer to resizing chimneys when equipment is replaced or removed.

A specific example from the IRC is Section G2425.15.1. Here it states, “The chimney or vent shall be resized as necessary to control flue gas condensation in the interior of the chimney or vent and to provide the appliance or appliances served with the required draft.”

The problem is there are no chimney or vent sizing tables that deal with exterior chimneys in the IRC. Luckily, the International Code Council was smart enough to link the IRC to the 2009 International Fuel Gas Code (IFGC) in this manner. Here, Section G2401.1 of the IRC states in the third paragraph, “The omission from this chapter of any material or method of installation provided for in the International Fuel Gas Code shall not be constructed as prohibiting the use of such material or method of installation. Fuel-gas piping systems, fuel-gas appliances and related accessories, venting systems and combustion air configurations not specifically covered in these chapters shall comply with the applicable provisions of the International Fuel Gas Code.” Therefore, in order to resize the exterior chimney, Tables 504.3(6a) (6b) or 504.3 (7a) or (7b) in the IFGC should be used.

When the contractor signs the “Chimney Verification” form, he/she is indicating that the existing chimney is in good physical condition and is appropriately sized. When this form is submitted to the construction office and the form indicates that there is an existing exterior chimney, that should raise a flag that a chimney liner would be required.

Liner resizing is important due to equipment today being more efficient when it comes to exterior chimneys. Less heat and draft up the chimney tend to cause a condensation problem.

Note that an interior chimney generally does not lead to a condensation problem because it is located in a conditioned area.

Source: Thomas C. Pitcherello
Code Assistance Unit
(609) 984-7609

## New Jersey Code Adoptions -- Elevator Safety Subcode

The following chart gives the adoption dates and the editions of the codes and standards used in connection with the Elevator Safety Subcode. Most recently, the International Building Code/2015 has been adopted as of September 21, 2015 and the newest elevator, dumbwaiter and conveyor standards may be used as shown in the table below. As with any code adoption, a six-month grace period starts the day of the adoption allowing the old codes to be used as long as a complete permit application is submitted before the grace period ends (i.e. March 20, 2015 is the last day for submittal under the old codes).

| Edition Date for Building Subcode | Effective Date for Model Codes | BOCA/IBC Number for Elevators, Dumbwaiters, and Conveyor Equipment | ANSI A17 Safety Standard for Elevators and Escalators | ANSI A90.1 Safety Standard for Belt Manlifts | ASME A18.1 and A18.1a Safety Standard for Platform Lifts and Stairway Chairlifts |
|---|---|---|---|---|---|
| 1975 | 01/01/77 | 16 | A17.1 - 1971; A17.1a - 1972; A17.1b - 1973 | A90.1-1969 | |
| 1976/S | 12/01/77 | 16 | A17.1 - 1971; A17.1a - 1972; A17.1b - 1973; A17.1c - 1974; A17.1d, e, f - 1975 | A90.1 - 1969; A90.1a - 1972 | |
| 1978 | 10/01/78 | 16 | A17.1 - 1971; A17.1a - 1972; A17.1b - 1973; A17.1c - 1974; A17.1d, e, f - 1975 | A90.1 - 1969; A90.1a - 1972 | |
| 1981 | 05/07/81 | 21 | A17.1 - 1978 | A90.1 - 1976 | |
| 1983/AS | 02/22/83* | 21 | A17.1 - 1981 | A90.1 - 1976 | |
| 1984 | 08/06/84 | 21 | A17.1 - 1981; A17.1a - 1982 | A90.1 - 1976 | |
| 1985/S | 04/01/85 | 21 | A17.1 - 1984 | A90.1 - 1976 | |
| 1986/AS | 09/22/86 | 21 | A17.1 - 1984 | A90.1 - 1976 | |
| 1987 | 04/01/87 | 26 | A17.1 - 1984 and 1985 Supplement | A90.1 - 1985 | |
| 1988/S | 06/20/88 | 26 | A17.1 - 1984 and 1985 Supplement | A90.1 - 1985 | |
| 1989/AS | 11/01/89 | 26 | A17.1 - 1987 | A90.1 - 1985 | |
| 1990 | 07/01/90 | 26 | A17.1 - 1987 | A90.1 - 1985 | |
| 1991/S | 03/04/91 | 26 | A17.1 - 1987 | | |
| 1993 | 05/01/93 | Chapter 30 | A17.1 - 1990 | A90.1 - 1985 | |
| 1996 | 07/06/98 | Chapter 30 | A17.1 - 1993 and 1994, 1995 Supplements | A90.1 - 1992 | |
| IBC-2000 NJ Edition | 05/05/03 | Chapter 30 | A17.1 - 1996 and 1997, 1998 Supplements | A90.1 - 1997 | A18.1 - 1999 and A18.1a - 2001 |
| IBC-2006 NJ Edition | 02/20/07 | Chapter 30 | A17.1-(2004-2005), including A17.1.S-2005 | A90.1-2003 | A18.1-2003 |
| IBC-2009 NJ Edition | 09/07/10 | Chapter 30 | A17.1-2007 | A90.1-2003 | A18.1-2005 |
| IBC-2015 NJ Edition | 09/21/15 | Chapter 30 | A17.1-2013 | A90.1-2009 | A18.1-2008 |

S = Supplement AS = Accumulative Supplement * = Operative date

(*continued next page*)

(*New Jersey Code Adoptions -- Elevator Safety Subcode*)

Note: The grace period is covered at N.J.A.C. 5:23-1.6(a).

1) Consult construction files to determine under which elevator or building code the permit was issued;
2) The following provides guidance on how to determine the applicable ASME A17.1 or ASME A90.1 codes (editions/supplements) when this information is not available for existing elevator devices. When performing cyclical inspections, if the permit — or installation — date precedes or is within the grace period, apply the code edition immediately preceding the adoption of the new subcode. Example: A permit was issued on May 15, 1987. If the construction file does not have the information about the edition of the standard used, then ANSI A17.1 - 1984 is enforced. If the permit was issued on November 16, 1987, ANSI A17.1 - 1984 with the 1985 supplement applies.

Source: Paulina Caploon
Elevator Safety Unit
(609) 984-7833

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## Guide to Free Electronic Downloads of Steel Standards Referenced in IBC and IRC

This guide is designed to help an individual or jurisdiction obtain free electronic downloads of the various steel standards that are referenced in the International Building Code (IBC) and International Residential Code (IRC). Listed below are the standards developing organizations (SDOs) that have their standards referenced in the IBC or IRC, along with a link to their documents. Please note that some SDOs may require the individual or jurisdiction to provide information prior to being able to download standards. Also, some SDO web pages provide errata and other useful information. Please take advantage of this opportunity. *Note: Not all standards are available for free download at this time.*

### AISC

American Institute of Steel Construction
One East Wacker Drive, Suite 700
Chicago, IL 60601-18021
www.aisc.org

www.aisc.org/specifications

### RMI

Rack Manufacturers Institute
8720 Red Oak Boulevard, Suite 201
Charlotte, NC 28217
www.mhi.org

www.mhi.org/publications

### AISI

American Iron and Steel Institute
25 Massachusetts Avenue, NW, Suite 800
Washington, DC 20001
www.steel.org

www.aisistandards.org

### SDI

Steel Deck Institute
P. O. Box 426
Glenshaw, PA 15116
www.sdi.org

www.sdi.org/publications-2/standards

### NAAMM

National Association of Architectural Metal Manufacturers
800 Roosevelt Road, Bldg. C, Suite 312
Glen Ellyn, IL 60137
www.naamm.org

www.naamm.org/amp/amp_technical_literature.aspx

### SJI

Steel Joist Institute
234 W. Cheves Street
Florence, SC 29501
www.steeljoist.org

www.steeljoist.org/ansi

Source: American Iron and Steel Institute, www.steel.org

Updated: October 29, 2015

## 2015 I-Code Flood Hazard Construction

Previous editions of the International Building Code and Residential Code (IBC and IRC, respectively) adopted by New Jersey differed in flood resistant standards regarding Coastal A flood zones. With the adoption of the 2015 edition of these codes on September 21, 2015, the Coastal A flood zone is one and the same regardless of whether the project is under the IBC or the IRC. The 2015 IRC has now aligned its Coastal A flood zone requirements with the V flood zone requirements (this was already the case in previous editions of the IBC). In short, whether using the 2015 IBC or IRC, a foundation in a Coastal A flood zone is required to meet the same requirements as a V zone.

The rule applies to new construction and those property owners whose properties were "substantially damaged." A structure is considered substantially damaged if the cost of restoration equals or exceeds 50 percent of the market value of the structure prior to the damage; this determination is made by the local floodplain administrator.

Keeping in mind that DEP's existing rules already contain a mandatory 1-foot freeboard*, which is maintained within NJAC 7:13, and applies to the lowest floor of the home or building, the question remains, how does this interface with the Uniform Construction Code (UCC), NJAC 5:23? The quick answer is to see your local floodplain administrator as he or she will let you know the elevation and the flood zone applicable to the home or building in question. Under the UCC, this is handled through the prior approval process. However, you should know that the DEP rules only use "lowest floor" and the UCC, by means of referenced model codes and standards, uses this term and "lowest supporting horizontal structural member". This may seem confusing, but hopefully, this boiled-down version of the interaction between rules is helpful.

* Note – Freeboard is a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. (http://www.fema.gov/freeboard)

Combining DEP's rules and the UCC's existing requirements essentially means you are looking at the more stringent requirements of the two to determine the Design Flood Elevation (DFE). Therefore, the breakdown of the elevation requirements in a flood zone per the 2015 IBC and IRC is as below.

| | | IRC[a] | IBC[b] | | | |
|---|---|---|---|---|---|---|
| | | | Cat 1 | Cat 2 | Cat 3 | Cat 4 |
| A zone | Elevation of the lowest floor[c] | BFE +1 ft | BFE +1 ft | BFE +1 ft | BFE +1 ft | BFE +2 ft |
| Coastal A zone and V zone | Elevation of the bottom of lowest supporting horizontal structural member of lowest floor[c] | BFE +2ft[d] | BFE +1ft[d] | BFE +2 ft[d] | BFE +3 ft[d] | BFE +3 ft[d] |

a – Per Sections R309.3/IRC and R322.2.2/IRC and Section 1.5.2/ASCE 24 , attached and detached enclosed areas used solely for parking of vehicles, building access or storage may be below the BFE.
b – Category classifications are from Table 1-1 of the ASCE 24-14 (see following page).
c – Minimum elevations are based on the model codes adopted by NJAC 5:23, in combination with NJAC 7:13; municipalities may adopt local ordinances for greater freeboard which increases the DFE.
d – If the lowest horizontal structural member is at least 1 ft in height, a reduction of 1 ft in freeboard is permitted (DEP's rules only spec out "lowest floor + 1ft" & do not speak to lowest horizontal member).

There actually are three entities involved in the enforcement of requirements for elevation of structures in identified flood hazard areas:

- The local floodplain administrator is responsible for the enforcement of the municipal flood ordinance. These ordinances are adopted as a condition of the municipality's participation in the National Flood Insurance Program. (It should be noted that municipalities may choose to adopt requirements for higher elevations.) DEP provides a model flood ordinance at: http://www.nj.gov/dep/floodcontrol/modelord.htm.
- DEP is responsible for enforcement of the State's Flood Hazard Area Control Act rules, NJAC 7:13. Under NJAC 7:13, if a home or building is being raised or reconstructed in the original footprint, DEP's "permit by rule" allows construction to proceed without a separate review or approval from DEP. This same rule allows for an increase in the footprint of up to 300 square feet under the permit by rule provisions, which is helpful In terms of additional steps or ramps necessary to access elevated buildings. Other construction in a flood hazard area requires approval from DEP.

*(continued next page)*

*(2015 I-Code Flood Hazard Construction)*

- The local construction official is responsible for enforcement of the UCC, including the elevation requirements described above.

| ASCE 24-14 Table 1-1, Flood Design Class of Buildings and Structures | |
|---|---|
| Flood Design Class | Use or Occupancy of Buildings and Structures |
| 1 | Buildings and structures that normally are unoccupied and pose minimal risk to the public or minimal disruption to the community should they be damaged or fail due to flooding. Flood Design Class 1 includes:<br>(1) temporary structures that are in place for less than 180 days;<br>(2) accessory storage buildings and minor storage facilities (does not include commercial storage facilities);<br>(3) small structures used for parking of vehicles; and<br>(4) certain agricultural structures. [Note (a)] |
| 2 | Buildings and structures that pose a moderate risk to the public or moderate disruption to the community should they be damaged or fail due to flooding, except those listed as Flood Design Classes 1, 3, and 4. Flood Design Class 2 includes the vast majority of buildings and structures that are not specifically assigned another Flood Design Class, including most residential, commercial, and industrial buildings |
| 3 | Buildings and structures that pose a high risk to the public or significant disruption to the community should they be damaged, be unable to perform their intended functions after flooding, or fail due to flooding. Flood Design Class 3 includes:<br>(1) buildings and structures in which a large number of persons may assemble in one place, such as theaters, lecture halls, concert halls, and religious institutions with large areas used for worship;<br>(2) museums;<br>(3) community centers and other recreational facilities;<br>(4) athletic facilities with seating for spectators;<br>(5) elementary schools, secondary schools, and buildings with college or adult education classrooms;<br>(6) jails, correctional facilities, and detention facilities;<br>(7) healthcare facilities not having surgery or emergency treatment capabilities;<br>(8) care facilities where residents have limited mobility or ability, including nursing homes but not including care facilities for five or fewer persons;<br>(9) preschool and child care facilities not located in one- and two-family dwellings;<br>(10) buildings and structures associated with power generating stations, water and sewage treatment plants, telecommunication facilities, and other utilities which, if their operations were interrupted by a flood, would cause significant disruption in day-to-day life or significant economic losses in a community; and<br>(11) buildings and other structures not included in Flood Design Class 4 (including but not limited to facilities that manufacture, process, handle, store, use, or dispose of such substances as hazardous fuels, hazardous chemicals, hazardous waste, or explosives) containing toxic or explosive substances where the quantity of the material exceeds a threshold quantity established by the authority having jurisdiction and is sufficient to pose a threat to the public if released. [Note (b)] |
| 4 | Buildings and structures that contain essential facilities and services necessary for emergency response and recovery, or that pose a substantial risk to the community at large in the event of failure, disruption of function, or damage by flooding. Flood Design Class 4 includes:<br>(1) hospitals and health care facilities having surgery or emergency treatment facilities;<br>(2) fire, rescue, ambulance, and police stations and emergency vehicle garages;<br>(3) designated emergency shelters;<br>(4) designated emergency preparedness, communication, and operation centers and other facilities required for emergency response;<br>(5) power generating stations and other public utility facilities required in emergencies;<br>(6) critical aviation facilities such as control towers, air traffic control centers, and hangars for aircraft used in emergency response;<br>(7) ancillary structures such as communication towers, electrical substations, fuel or water storage tanks, or other structures necessary to allow continued functioning of a Flood Design Class 4 facility during and after an emergency; and<br>(8) buildings and other structures (including, but not limited to, facilities that manufacture, process, handle, store, use, or dispose of such substances as hazardous fuels, hazardous chemicals, or hazardous waste) containing sufficient quantities of highly toxic substances where the quantity of the material exceeds a threshold quantity established by the authority having jurisdiction and is sufficient to pose a threat to the public if released. [Note (b)] |
| Note (a) - Certain agricultural structures may be exempt from some of the provisions of this standard; see ASCE 24-14 Section C1.4.3.<br>Note (b) - Buildings and other structures containing toxic, highly toxic, or explosive substances shall be eligible for assignment to a lower Flood Design Class if it can be demonstrated to the satisfaction of the authority having jurisdiction by a hazard assessment as described in ASCE 7-10 Section 1.5.3 of Minimum Design Loads for Buildings and Other Structures that a release of the substances is commensurate with the risk associated with that Flood Design Class. | |

If you have any questions, please contact me at (609) 984-7609.

Source: Rob Austin
Code Assistance Unit

The Construction Code Communicator is an online publication of the New Jersey Department of Community Affairs' Division of Codes and Standards. It is typically published four times a year.

Copies may be read or downloaded from the division's website at: www.nj.gov/dca/divisions/codes.

Please direct any comments or suggestions to the NJDCA, Division of Codes and Standards, Attention: Code Development Unit, PO Box 802, Trenton, NJ 08625-0802 or codeassist@dca.nj.gov.

## Non-Cooktop Type Kitchens in Commercial Settings

Well, no one is perfect. With the adoption of the 2015 I-Codes, it looks as if we may have missed a few items. Regarding kitchens and kitchenettes in a commercial setting, NJAC 5:23-7.2(b)21 used to state: "In section 804.4, entitled "Sinks," add the following: "Exception: In spaces that do not provide a cooktop or conventional height of 36 inches; a parallel approach must be provided."
It has been brought to our attention that this exception did not make it into the amendments listed at NJAC 5:23-3.14(b)10ii for the changes to Chapter 11 of the International Building Code/2015 and the ICC/ANSI A117.1-2009. This will most likely affect, for example, break room kitchenettes and the like.

We plan to move a proposal to restore this exception. In the interim once the grace period has expired (March 21, 2016), applicants may wish to request a variation based on the old exception and the Department's intent to continue it.

This correction will be added to the list of corrections seen earlier on page 3. Once it is finalized, replacement pages for your loose-leaf NJ IBC will be available at http://www.nj.gov/dca/divisions/codes/codreg as "Corrected pages" under the Building Subcode.

Source: Code Assistance Unit
(609) 984-7609

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**Charles A. Richman, Commissioner**

**Volume 27, Number 4** **Winter 2015**

## The Winter Communicator: A Reminder

The final (Winter) issue of the *Construction Code Communicator* each year now consists of a collection of Alerts, Hot Topics, Letters from the Director, guidance documents, and other information items that were posted on the Division's website during the calendar year. This year, we are including articles that were printed in earlier editions of the *Construction Code Communicator* on topics that continue to generate questions. As noted on the last page, once this edition of the *Construction Code Communicator* has been posted, these individual Alerts, Hot Topics, Letters from the Director, guidance documents, and other information items will be removed from those sections of Division's website. There is one exception: the materials related to Superstorm Sandy will remain in place. In short, there are no new articles in this issue.

Please note that, although the documents will be removed from the Alerts and Hot Topics, it will still be possible to access them through Division's Document Library or through the "Topics A-Z" tab on the Division's website: www.nj.gov/dca/divisions/codes/.

Also, the indices for all issues of the *Construction Code Communicator* 2014 and 2015 are included in this issue as a handy reference.

Prospectively, the *Construction Code Communicator* will follow this same format: three issues, Spring, Summer, and Fall, that contain new articles and a Winter issue that will provide in one place all the Alerts, Hot Topics, Letters from the Director, guidance documents, and other information items that were posted on the Division's website in that calendar year with previously printed articles where the topic continues the generate questions.

If you have any questions about the *Construction Code Communicator*, or if you have any recommendations for articles, please feel free to contact me at (609) 984-7609 or at Emily.Templeton@dca.nj.gov.

Source: Emily W. Templeton
Division of Codes and Standards

***In This Issue***

## National Standard Plumbing Code/2015 Adoption

Originally proposed August 17, 2015, the pluming subcode, NJAC 5:23-3.15, adopted the 2015 edition of the National Standard Plumbing Code (NSPC) on January 4, 2016. Not unlike any other model code adoption, the 2009 NSPC will have a 6-month grace period. Consistent with projects utilizing the 2009 I-Codes having March 20, 2015 as the last day to submit a complete permit application to the local enforcing agency, the same will be in effect for the 2009 NSPC with July 3, 2016 being its last day. Otherwise, permit applications not stipulating that the previous code is chosen, the local enforcing agency should assume the new code is being used during the grace period(s).

This and all other proposals/adoptions can be found at http://www.nj.gov/dca/divisions/codes/codreg/ by scrolling to "Rule Proposals and Adoptions."

Source: Code Assistance Unit, (609) 984-7609

## Permit Extension Act—Time is Up

The extension period under the Permit Extension Act ended on December 31, 2015. Please note that the adoption of the 2015 International Codes on September 21, 2015 affects the "shelf life" of released prototype plans. All plans submitted in support of a permit application after the end of the six month grace period (March 21, 2016) should be based on the 2015 editions of the model codes. Hardships should be dealt with by the construction official on a case by case basis.

Previous information regarding the Permit Extension Acts can be found at http://www.nj.gov/dca/divisions/codes/topics/ by scrolling to "Permit Extension Act" under the letter P.

Source: Code Assistance Unit, (609) 984-7609

## Digital Signatures and Seals for NJ Engineers

Effective November 16, 2015, the State Board of Professional Engineers and Land Surveyors amended NJAC 13:40 to allow digital signatures and seals for digitally-transmitted plans. As it affects the Uniform Construction Code, this is an acceptable practice for plan submittal by a licensed NJ engineer in order to comply with NJAC 5:23-2.15.

The specific language for this change can be found at NJAC 13:40-8.1 and 8.1A by going to http://www.njconsumeraffairs.gov/pels/Pages/regulations.aspx and clicking on "Chapter 40 State Board of Professional Engineers and Land Surveyors Regulations" within the "Laws and Regulations" heading.

Source: Code Assistance Unit, (609) 984-7609

## Acceptance of Electronic Permit Applications

*(Memorandum to Construction Officials – November 21, 2014)*

A number of local code officials have asked whether electronic permit applications may be accepted. This memo is to advise that electronic permit applications may be accepted provided that no plans or seal, either from a licensed design professional or licensed contractor, is required. This limits the ability to submit an electronic permit application for the time being. It is our hope that the licensing boards will work to make it possible to seal applications electronically at some point in the not-too-distant future. Until then, only applications that do not require any seal may be accepted electronically.

For electronic applications, please use the following language, together with a check box, above what would be the signature on the application: *I hereby certify by checking this box that the foregoing statements made by me on this application are true. I understand that if any of the above statements is willfully false, I am subject to punishment*.

Source: Edward M. Smith
Director, Division of Codes and Standards

## Summary of Rule Changes for 2015 and 2014

September 21, 2015 New Jersey Register

- **N.J.A.C. 5:23-3.14, 3.16, 3.17, 3.18, 3.20, 3.21 and 3.22 (amended) -- Building Subcode, Electrical Subcode, Fire Protection Subcode, Energy Subcode Mechanical Subcode, One- and Two-family Dwelling Subcode and Fuel Gas Subcode:** The 2015 International Codes and the 2014 National Electrical Code are adopted by reference as the subcodes of the UCC.
  **N.J.A.C. 5:23-7.1 through 7.14 and 7.20 (repealed) -- Barrier Free Subcode:** With the adoption of Chapter 11 of the 2015 International Building Code, and its reference standard, ICC/ANSI A117.1-2009, these sections of the Barrier Free subcode are repealed.
- **Bulletin 15-2 -- Adopted Codes, Standards and Recommended Practices Referenced Under Informational Notes of the National Electrical Code 2014:** This bulletin contains a list of those specific codes, standards and recommended practices referenced in the Informational Notes of the Electrical Subcode (2014 National Electrical Code). This bulletin replaces Bulletin No. 12-1, which will be withdrawn after the 6-month grace period.

August 17, 2015 New Jersey Register

- **N.J.A.C. 5:23-10 -- Radon Hazard Subcode:** Recently, the list of municipalities in Tier 1, issued by the New Jersey Department of Environmental Protection (DEP) and incorporated into the Radon Hazard Subcode as Appendix 10-A of the Uniform Construction Code, has been amended by the DEP. The following municipalities have been added and incorporated into this Appendix: Lawnside Borough (Camden County), Lawrence Township (Cumberland County), Upper Deerfield Township (Cumberland County), South Harrison Township (Gloucester County), Kingwood Township (Hunterdon County), Millstone Township (Monmouth County), Kinnelon Borough (Morris County), Mannington Township (Salem County) and Bridgewater Township (Somerset County).
- **Bulletin 15-1 -- Liquid Carbon Dioxide (CO2) Carbonated Beverage Systems:** This bulletin is being issued by the Divisions of Fire Safety and Codes and Standards to provide information on how to address installations of CO2 carbonated beverage systems.
- **Bulletin 13-1B -- Pile foundation design issues in flood hazard areas for one and two-family dwellings:** This bulletin is revised to reflect the changes that went into effect 5-18-15 regarding foundations in a V zone.
- **Bulletin 07-3 -- Ice Dam Membrane/Ice Barrier:** This bulletin is updated to revise the language so that its application is made more clear.

May 18, 2015 New Jersey Register

- **N.J.S.A. 52:27D-123.14 -- The dimensional requirements for certain elevators:** The Uniform Construction Code Act was modified by P.L.2015, c.21. This new statute supersedes the rule at N.J.A.C. 5:23-3.14(b)21v. and calls for the Commissioner to amend the code to reflect this change. (This amendment will be included with the adoption of the 2015 International Codes.) The amendment to the Act narrows the requirement for elevators to accommodate stretchers to those elevators serving residential buildings four or more stories above or below grade. The change brings the scoping for and dimensions of the elevator required by New Jersey law into conformance with the International Building Code.
- **N.J.A.C. 5:23-2.15, 2.18, 2.37 and 3.21 -- Home elevations:** As described in the November, 2014 transmittal, requirements for home elevations were established through a special adoption. This special adoption included a concurrent proposal. The concurrent proposal has now been finalized and adopted with a minor modification. At N.J.A.C. 5:23-2.18, “professional engineer” has been changed to “design professional” to reflect the fact that the pile log and certification may be prepared by either an engineer or an architect.
- **N.J.A.C. 5:23-3.2(d) -- Commercial farm buildings:** Under this adopted amendment, the covering for hoophouses no longer is required to conform to the fire propagation criteria of National Fire Protection Association (NFPA) 701, Standard Method of Fire Tests for Flame-propagation of Textiles and Films.

*(continued next page)*

February 17, 2015 New Jersey Register

- **N.J.A.C. 5:23-3.4(d)** is amended regarding the enforcement responsibilities for the installation and replacement of mechanical equipment in existing residential buildings of Group R-3, R-4, or R-5 in that the plumbing subcode official is assigned in cases where no mechanical inspector is employed. By doing so, only one technical section would be required for the mechanical portions of the performed work. If electrical work is part of the installation, an electrical technical section would also be required.
- **N.J.A.C. 5:23-3.11(a)8** is amended to assign plan review authority for residential health care facilities to the Department's health care facilities plan review unit.
- **N.J.A.C. 5:23-3.11A(a)1 and (b)** are amended regarding the process for review of plans for projects at schools. No Department of Community Affairs approval is required for local review of plans for projects to be undertaken at schools (with the exception of the construction of new schools which still must be submitted to the Department for review.) This also eliminates the use of Department of Education Form DOE-124.
- **N.J.A.C. 5:23-4.5(j)** is amended regarding conflict of interest for construction or subcode officials, assistants to the construction or subcode official, trainees, inspectors, or plan reviewers in that it removes the prohibition from undertaking any construction-related activity in a municipality adjacent to any municipality in which they are employed.
- **N.J.A.C. 5:23-5.2 through 5.5, 5.21, 5.22, and 5.25** are amended regarding special inspectors making the rules for imposing sanctions on licensed code officials also applicable to certified special inspectors.

November 3, 2014 New Jersey Register

- **N.J.A.C. 5:23-2.15, 2.18, 2.37 and 3.21 -- Home Elevations:** Even though published in the November 3, 2014 issue of the New Jersey Register, the special adoption of these rules took effect on October 1, 2014, the date of filing with the Office of Administrative Law. The concurrent proposal has a comment period which will end on January 2, after which the Department must act to adopt the rules anew. This rulemaking stems from the enactment of P.L. 2014, c. 34 on August 15, 2014. This statute calls for the Division of Consumer Affairs, in the Department of Law and Public Safety, to adopt rules for the registration of home elevation contractors. And the Department of Community Affairs is charged with the adoption of rules governing the methods, procedures and other requirements that must be followed in performing home elevations.
- Bulletin 14-3, Jurisdiction Over Site Work - This bulletin offers guidance regarding the jurisdiction over site work performed in complexes, office or industrial parks or other "campus style" settings.

On October 1, 2014 (emergency rule proposal/adoption that appeared in the November 3, 2014 New Jersey Register), the Uniform Construction Code was amended to establish **standards for the elevation of existing buildings**:

- N.J.A.C. 5:23-2.15 is amended to require that a permit application to elevate an existing home include the registration number of the home elevation contractor.

- N.J.A.C. 5:23-2.18 is amended to state that a pile log and certification, prepared by a licensed professional engineer, takes the place of an inspection for pile foundations. The amendments include a description of what the certification must include and a requirement that the certification be based on the engineer's personal observations. (Please note that the State Board of Architects has pointed out that an architect may design and/or certify pilings under State law. The rule will be corrected to say "design professional.")

- A new rule, N.J.A.C. 5:23-2.37, contains the technical requirements for elevation, including addressing utility service connections, methods and equipment required, and protection of adjoining property.

- N.J.A.C. 5:23-3.21 is amended to require the use of American Society of Civil Engineers (ASCE) Standard 24 for foundation design and construction for one-or two-family homes on piles. Currently, the use of ASCE 24 is required for buildings other than one- or two-family homes and is listed as an alternative in the one- and two-family dwelling subcode. Because ASCE 24 is recognized as the industry standard for construction on piles, it is being adopted, and concurrently proposed. Alternate designs that do not conform to ASCE 24 may still be

*(continued next page)*

used through application for and granting of a variation. It should be noted that, because this is an amendment to an adopted subcode of the Uniform Construction Code, the six month grace period provided at N.J.A.C 5:23-1.6 will apply.

October 6, 2014 New Jersey Register

- **N.J.A.C. 5:23-4.19, 4.20, 5.21, 5.22, 8.4, 8.9, 8.10, 8.11, 12.5, and 12.6 -- Fee Increases:** The Department raised fees for various programs that the Division of Codes and Standards administers. The fees charged by the Division are intended to generate sufficient income to cover program costs.

July 21, 2014 New Jersey Register

- **N.J.A.C. 5:23-2.15, 2.18 and 6.3A -- Flood-Resistant Construction:** For projects involving new construction, additions, or buildings that are deemed to be a substantial improvement, the amendments to N.J.A.C. 5:23-2.18(b)1ii(2) require the submittal of the lowest floor elevation and as-built elevation documentation for buildings located in a flood hazard area, in addition to the existing requirement for the foundation location survey. New N.J.A.C. 5:23-6.3A provides that, for buildings in designated flood hazard areas, any work that constitutes a substantial improvement of the existing building, as determined by the local floodplain administrator, must comply with the applicable flood-resistant construction requirements in the appropriate sections of the building subcode or of the one- and two-family dwelling subcode referenced in the rule.

May 5, 2014 New Jersey Register

- **N.J.A.C. 5:23-9.6 -- Interpretations: Construction requirements for new and existing casinos:** The adopted amendments address slot stools, slot machine heights and items related to emergency egress from the gaming areas.
- **Bulletin 14-1 – New One- or Two-Family Dwellings Installing NFPA 13D or P2904 Instead of NFPA 13R Sprinkler Systems:** New bulletin that provides guidance on allowing the construction of three story structures when either NFPA 13D or IRC Section P2904 fire sprinkler system is installed.
- **Bulletin 14-2 – Use of NFPA14 Manual Wet Fire Standpipes:** New bulletin that provides guidance on allowing the installation of a NFPA 14, Class I, manual wet standpipe system or other listed type standpipe systems in buildings that have either a NFPA 13 or 13R sprinkler system installed.

January 6, 2014 (including December 2, 2013) New Jersey Register

- **N.J.S.A. 52:27D-130 and 130.8 –** These amendments are companions to changes to the Municipal Land Use Law. The new provisions state that that, when there is a transfer of ownership of a project with an open permit, the new owner should file a permit update to reflect the change in ownership. And if the municipality has adopted an ordinance requiring the new developer to provide a new performance guarantee, then that performance guarantee must be in place before work proceeds. This would be handled as a prior approval.
- **N.J.A.C. 5:23-3.14(b)17 –** This administrative correction, new N.J.A.C. 5:23-3.14(b)17vii, is added to reflect the replacement of “registered design professional” with “person” in Section 1704.1.1 of the building subcode.
- **N.J.A.C. 5:23-6.8(b)** – This administrative correction addresses a typographical error appearing in the original notice of proposal. The corrected reference is Section 708.10.
- **Bulletin 98-3 -- Health Care Facilities Plan Review**: Residential health care facilities added to list of facilities to be reviewed by the Department.
- **Bulletin 00-3 -- Public Schools - Plan Review Procedure, Facility Planning Standards, and UCC Enhancements** *(replace pages 1-6, keep remaining):* Review procedures updated.
- **Bulletin 03-4 -- Wind Speed Map:** Information regarding an additional tool for determining wind speed and example provided.
- **Bulletin 03-5 -- Special Inspections:** Building subcode references updated.
- **Bulletin 05-2 -- Seismic Hazard Maps:** Information regarding an additional tool for determining seismic hazard category and example provided.
- **Bulletin 13-1B -- Pile foundation design issues in flood hazard areas for one and two-family dwellings:** New bulletin regarding the design and construction of pile foundations.

# Construction Code Communicator Index 2014

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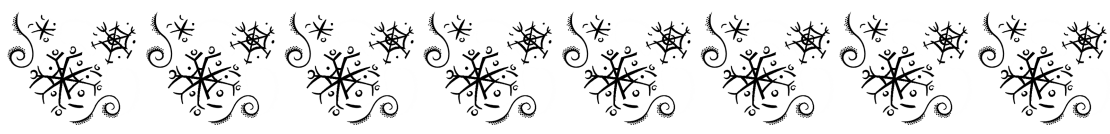

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