

# Construction Code Communicator



State of New Jersey  
 Chris Christie, Governor  
 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](http://www.nj.gov/dca/divisions/codes/forms/pdf_licensing/ucc_fall_brochure.pdf)

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## 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. Pizar



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. Pizar (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](mailto: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](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 1/2 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](http://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](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 Protection 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 1/2 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.

**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**

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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





## 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

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## 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](http://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](mailto:codeassist@dca.nj.gov).



...and a special thanks to the...

**BUILDING SAFETY CONFERENCE OF NEW JERSEY COMMITTEE**

James Castle  
*Municipal Elevator Safety Inspection Association of NJ*

John Delesandro  
*Department of Community Affairs*

Robert Downey  
*Municipal Electrical Inspectors Association*

Anthony Gargani  
*NJ Plumbing Inspectors Association*

Gary Lewis  
*NJ Fire Prevention and Protection Association*

Kevin Luckie  
*Department of Community Affairs*

Robert Mittermaier  
*Building Officials Association of NJ*

John Terry  
*Department of Community Affairs*

Debbie Timko  
*NJ Association of Technical Assistants*

New Jersey Department of Community Affairs  
Division of Codes and Standards  
101 South Broad Street  
P.O. Box 802  
Trenton, NJ 08625-0802

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