

Construction Code Communicator



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

Department of Community Affairs
 Lori Grifa, Acting Commissioner

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Status of Adoption of 2009 National Model Codes

The adoption of the 2009 editions of the following national model codes, as amended, has been delayed as a result of Governor Christie's Executive Order 1, which was signed on January 19, 2010.

- International Building Code/2009 as the Building Subcode (N.J.A.C. 5:23-3.14) and Fire Protection Subcode (N.J.A.C. 5:23-3.17);
- National Standard Plumbing Code/2009 as the Plumbing Subcode (N.J.A.C. 5:23-3.15);
- International Energy Conservation Code/2009 as the Energy Subcode (N.J.A.C. 5:23-3.18);
- International Mechanical Code/2009 as the Mechanical Subcode (N.J.A.C. 5:23-3.20);
- International Residential Code/2009 as the One- and Two-Family Dwelling Subcode (N.J.A.C. 5:23-3.21); and
- International Fuel Gas Code/2009 as the Fuel Gas Subcode (N.J.A.C. 5:23-3.22).

All rules subject to Executive Order 1 are undergoing a review. Information on the pending publication of the 2009 national model codes as an adoption will be

See 2009 Model Codes - page 2

PERMIT EXTENSION ACT of 2008 – Extended

On January 18, 2010, former Governor Jon S. Corzine signed a bill into law to extend the expiration date of certain permits under the "Permit Extension Act of 2008," P.L. 2008, c.78, by an additional two and a half years. Under this new law, P.L. 2009, c. 336, only the dates have changed. All of the other terms and conditions of the Permit Extension Act remain as they were. Below please find updated guidance on the application of the Permit Extension Act, which has been revised to reflect the new expiration dates.

As code officials, you will continue to deal with this law on two levels: its impact on permits issued under the UCC and its impact on prior approvals. The Act stops the clock on the running of approvals during the "extension period," which is now defined as January 1, 2007 through December 31, 2012. This means that any UCC permit that was valid as of January 1, 2007 will still be valid on December 31, 2012. On December 31, 2012, when the clock starts again, the permit is valid for an additional six months or for the time that would have remained on January 1, 2007, **whichever is shorter**. Any permit issued **during** the extension

See Permit Extension - page 2

In This Issue

Construction Reporter: Dec 2009 Highlights & Y.T-D Summary ..	5	Permits and Prior Approvals	10
Duct Insulation R-values: IECC/2006 vs. IECC/2009	4	Replacement and Newly Installed Electrical Panels	12
GFCI Protection in New Jersey	8	Solar Panels and Guards	11
Index to Construction Code communicator 2009 (Volume 21)	3	Solar Photovoltaic Installations: The Board of Examiners of Electrical Contractors Explains	10
New NFPA Referenced Standards for the 2009 I-Codes	8	Status of Adoption of 2009 National Model Codes	1
New Recreational Park Trailer Standard is Released	4	Update 2: Certification to Perform Services on Unregulated Underground Heating Oil Tank Systems	13
New Referenced Standard for Residential construction in High Wind Regions	2	US EPA Lead-Based Paint Renovation, Repair and Painting (RRP) Rules	12
Permit Extension Act of 2008 –Extended	1		

2009 Model Codes

continued from page 1

posted on the Division's web site as it is known.

While this review is taking place, all information in this *Construction Code Communicator* regarding requirements of the 2009 national model codes is informative only. Although a permit applicant could ask to be allowed to use the 2009 model codes, as proposed, the use of the 2009 model codes cannot be required by code officials until, and unless, the adoption is published in the *New Jersey Register*.

If you have any questions about the status of the adoption of the 2009 editions of these national model codes, please contact the Code Assistance Unit at (609) 984-7609.

Source: Emily W. Templeton
Division of Codes

Permit Extension

continued from page 1

period (between January 1, 2007 and December 31, 2012) will be valid until June 30, 2013 (six months beyond the end of the extension period,) or until the date when it would have expired if the Permit Extension Act had not been passed, **whichever is longer**. However, the Act does have exclusions.

Please visit www.nj.gov/dca/codes for the information sent to construction officials in January 2010. The information contains examples of the Act's application to UCC permits, lists the types of permits/projects that are included and excluded, and further clarifies the definition of "Environmentally Sensitive Area."

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

Source: Rob Austin
Code Assistance Unit

New Referenced Standard for Residential Construction in High Wind Regions

There is a new referenced standard in the 2009 International Building Code (IBC/2009) and 2009 International Residential Code (IRC/2009) for residential construction in high wind regions. This standard, International Code Council (ICC) 600, is referenced in exception #1 of Section 1609.1.1 of IBC/2009 and in Item #2 of Section R301.2.1.1 of IRC/2009. NOTE: This will apply once the 2009 model codes have been adopted.

See New Reference Standard –High Wind at right

New Referenced Standard –High Wind

Continued from left

What is the scope of this standard?

The scope of this standard is one- and two-family dwellings that are subject to the IRC/2009 and Group R-2 and R-3 buildings built under the IBC/2009. The provisions contained in the standard are based on enclosed buildings. An enclosed building is defined as having all exterior walls with solid elements for the full perimeter of the building. However, an open porch not exceeding 20 feet in width is allowed to be constructed in accordance with this standard.

Table 102 of the ICC 600 provides the limitations of building geometry including the number of stories for specific construction materials.

What does this standard have to offer?

The standard provides **prescriptive** methods for wind resistant design and construction details for residential buildings of concrete, masonry, wood-framed, and cold-formed steel-framed construction that are sited in high-wind areas consistent with the IBC/2009 and ASCE 7.

The standard is arranged as follows:

- Chapter 1 General requirements – provides the limitations of the standard, design parameters and criteria.
- Chapter 2 Buildings with concrete or masonry exterior walls – prescribes construction requirements for buildings where all of the exterior walls above the foundation are concrete or masonry.
- *Chapter 3 Buildings with wood or steel light-framed exterior walls – prescribes construction requirements for building in which all exterior walls above the foundation are of light-framed construction using wood or steel framing members.
- *Chapter 4 Combined exterior wall construction – prescribes construction requirements for various individual building elements where one or more exterior walls above the foundation contain a combination of building materials.
- Chapter 5 Roof assemblies – provides the criteria for design, materials, construction and quality control of roof assemblies.
- Chapter 6 Fenestration – prescribes performance and construction requirements for windows, skylights, garage doors, sliding glass doors, glass patio doors and entry doors. Waterproofing, sealing and flashing are not included.

See New Referenced Standard –High Wind - page 4

Index to the *Construction Code Communicator* 2009 (Volume 21)

Article	Edition	Issue No.	Page	Discipline
2006 IECC, 2% Better Than Code and RES-Check	Fall	2	4	Mechanical;Energy
2009 Building Safety Conference	Spring/Summer	1	1	
Accessible Parking at Health Care Centers and Offices Where People with Mobility Impairments Receive Health Care Services	Fall	2	5	Barrier Free; Building
Air Leakage	Spring/Summer	1	5	Building; Energy
ALERT! Changes Are Coming to the CCC	Spring/Summer	1	6	
Attention Electrical Subcode Officials—New FPN Bulletin on Web	Fall	2	1	Electrical
Certification to Perform Services on Unregulated Underground Heating Oil Tank Systems	Spring/Summer	1	7	Plumbing
Certification to Perform Services on Unregulated Underground Heating Oil Tank Systems	Fall	2	6	Plumbing
Children's Plumbing Fixture Requirements in Code	Fall	2	12	Plumbing
Clarification Regarding the Recent Amendment to the State Uniform Construction Code Act Concerning Technical Assistants	Fall	2	3	
COAH and You	Fall	2	8	
CPVC Fire Sprinkler System Drop Installations	Spring/Summer	1	1	Fire Protection
The Foundation of Good Partnerships	Spring/Summer	1	6	
Garden-type Utility Sheds and Similar Structures--Clarification	Spring/Summer	1	7	Building
Green Buildings: An Introduction	Spring/Summer	1	11	
Index to <i>Construction Code Communicator</i> 2008 (Volume 20)	Spring/Summer	1	3	
Kidde Recalls Dual Sensor Smoke Alarms- Can Fail to Warn of Fire	Fall	2	13	Fire Protection
Limited Use Limited Application Elevators and the Barrier Free Subcode	Fall	2	8	Barrier Free; Elevator; Building
Lowest Floor Level in Flood-Resistant Construction	Spring/Summer	1	10	Building
<i>New Jersey Register</i> Adoptions	Spring/Summer	1	10	
<i>New Jersey Register</i> Adoptions	Fall	2	10	
The New Jersey State Permit Surcharge (Training) Fee: Charge or No Charge?	Spring/Summer	1	4	
Owners Doing Work in Their Own Homes	Spring/Summer	1	8	
Rehab and the 2008 NEC	Fall	2	2	Electrical
Rehab and the 2008 NEC: Corrected Version	<i>Posted on Division's Web Site 2/2010</i>			Electrical
Residential and Commercial Building Duct Insulation—There is a Difference!	Fall	2	14	Plumbing
Residential Swimming Pools and the Plumbing Subcode: Update	Fall	2	9	Plumbing
Shared Services	Spring/Summer	1	8	
Site Remediation Reform Act: A Prior Approval Alert	Fall	2	7	
Solar Photovoltaic Systems—How to Calculate the Fee for the Permit Application	Fall	2	4	Building; Electrical
Special Inspections	Fall	2	1	Building
Update on National Standard Plumbing Code Hearings	Spring/Summer	1	11	Plumbing
We've Got the Power	Spring/Summer	1	9	Electrical
Which IFC Do I Use?	Spring/Summer	1	5	Fire Protection

New Referenced Standard –High Wind *Continued from page 2*

- Chapter 7 Exterior wall covering – provides the criteria for the design, materials, construction and quality of exterior wall covering.
- Chapter 8 Referenced standards – provides a list of standards that are referenced in this standard.
- Appendix A Design load assumptions – provides an overview of design assumptions for prescriptive continuous foundations for use with wood and steel light-framed buildings.
- Appendix B Flood-resistant foundations for residential buildings with wood for light-steel framed walls – provides the criteria to construct a building in flood plains.
- Appendix C ICC-600 design checklist – provides general guidelines to accomplish compliance with this standard.
- Appendix D Dimensions of nails described by penny-weight system – provides dimensions for penny-weight nails.

*Chapters 3 and 4 of this standard do not address the prescriptive design of wood or steel light-framed constructed exterior walls above the foundation. The standard provides a reference for all exterior walls above the foundation to the American National Standards Institute/American Forest and Paper Association (ANSI/AF&PA), Wood Frame Construction Manual, for wood-framed buildings and the American National Standards Institute/American Iron and Steel Institute S230 (ANSI/AISI/S230), Standard for Cold-Formed Steel Framing-Prescriptive Method for One- and Two-Family Dwellings for steel light-framed construction.

The design checklist in Appendix C provides a tool to ensure compliance with all of the items that are part of this standard. The checklist facilitates the plan review for code officials to ensure that all items have been addressed.

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

Source: Marcel Iglesias
Code Assistance Unit

New Recreational Park Trailer Standard is Released

At N.J.A.C. 5:23 - 4D, the Uniform Construction Code (UCC) adopts American National Standards Institute (ANSI) A119.5 (Recreational Park Trailer Standard) as

See Recreational Park Trailer Standards at right

Duct Insulation R-values: IECC/2006 vs. IECC/2009

In the International Energy Conservation Code (IECC)/2006, ducts or portions thereof that are located outside the building thermal envelope (BTE) are required to be insulated as per Section 403.2.1 of the 2006 International Energy Conservation Code (IECC), which requires that *supply and return ducts* be insulated to a minimum of R-8 and ducts in floor trusses be insulated to a minimum of R-6.

With the 2009 IECC on the horizon for adoption, I thought I would bring to your attention that Section 403.2.1 has been rewritten. Once the IECC/2009 is adopted, *supply ducts outside the BTE in attics* will be required to be insulated to a minimum of R-8 and *all other ducts outside the BTE* will be required to be insulated to a minimum of R-6.

As you can see, this is a significant difference between the 2006 and the 2009 editions of the IECC and it will be very important for mechanical plans to be labeled specifically for supply and return ducts.

Following the adoption of the 2009 IECC, if there are no supply ducts in the attic, all ducts outside the BTE will be required to be insulated with at least R-6 insulation.

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

Source: Rob Austin
Code Assistance Unit

Recreational Park Trailer Standards *Continued from left*

the basis for its construction requirements for recreational park trailers. The 2005 edition is adopted by reference in the UCC. A 2009 version was recently published. The Department anticipates that the industry will begin to produce units to the newer version of the standard sometime later this year. We also anticipate that this will occur before we can change the version of the standard that is referenced in the UCC.

We have reviewed the newer version of the standard and determined that it is at least as stringent as the previous version and, in some cases, it is more stringent. Therefore, units that are constructed to the 2009 version are in compliance with the 2005 version and should be accepted as meeting the requirements of the UCC.

If you have any questions, please call me at (609) 984-7974.

Source: Michael Baier
Acting Chief, Bureau of Code Services

CONSTRUCTION REPORTER: DECEMBER 2009 CONSTRUCTION HIGHLIGHTS AND YEAR-TO-DATE SUMMARY

Following is a reprint of the December 2009 Highlights of the New Jersey Construction Reporter, a publication of the NJ Dept. of Community Affairs that examines construction statistics derived from building permits and certificates issued throughout the State. The full New Jersey Construction Reporter may be viewed online at www.nj.gov/dca/codes/cr/conrep.shtml.

- 2009 looks to be one of the worst years for New Jersey’s construction industry in more than twenty years, and December building permit activity was typical of previous months this past year.
- The estimated cost of construction authorized by building permits in December was \$643.3 million; 553 municipalities reported.
- Residential construction totaled \$373.6 million. This was 58.1 percent of all activity. New home construction totaled \$193.2 million, or 30 percent of all work.
- Nonresidential construction amounted to \$269.7 million, accounting for 41.9 percent of all activity. A total of 356,606 square feet of new office space was authorized by permits in December. New retail space amounted to 230,721 square feet.
- Evesham Township, Burlington County led all municipalities with \$23.5 million of work in December. Most of this was for assisted living complexes with 91 apartments. Evesham also ranked third among municipalities with the most new houses in December. Delanco, also in Burlington County, had 100 authorized units. Lower Township, Cape May County had 93. In all three communities, age- and income-restricted apartment buildings accounted for most of the housing activity.

Year to Date

Even though year-to-date figures are preliminary, as a few municipalities still must submit monthly building permit reports, several trends are evident for 2009:

- New Jersey’s construction industry, which declined in 2008, grew worse in 2009.
- All major indicators are down compared to 2008. The depressed housing market continues, both for single- and multi-family developments.
- Between January and December 2009, the estimated cost of construction authorized by permits was \$9.4 billion. This is \$4.4 billion less than this same time period for 2008, for a decline of 31.7 percent.

Major Construction Indicators, New Jersey December Year-to-Date Figures Compared to Annual Totals				
Period	Estimated Cost of Construction	Authorized Housing Units	Authorized Office Space (square feet)	Authorized Retail Space (square feet)
Year-to-Date Figures (January to December)				
January – December 2009	\$9,446,838,643	11,067	4,035,812	2,417,629
January – December 2008	\$13,834,284,685	16,203	7,869,822	5,459,374
January – December 2007	\$14,907,746,308	25,472	8,875,968	4,993,848
Annual Figures				
2008	\$13,944,534,578	16,338	7,962,998	5,557,101
2007	15,356,572,820	25,948	9,569,501	5,423,889
2006	15,675,107,955	32,050	11,113,555	5,186,662

Construction Reporter

continued from page 5

Major Construction Indicators, New Jersey December Year-to-Date Figures Compared to Annual Totals				
Period	Estimated Cost of Construction	Authorized Housing Units	Authorized Office Space (square feet)	Authorized Retail Space (square feet)
Annual Figures -continued				
2005	15,397,507,147	39,688	11,038,132	5,965,258
2004	14,274,331,850	39,254	12,219,068	4,911,257
2003	12,148,747,807	35,171	9,744,146	6,038,428
2002	12,079,942,099	34,589	9,261,054	7,560,913
2001	12,007,456,630	35,680	19,134,533	7,244,833
2000	11,387,683,514	38,065	15,531,039	6,063,412
1999	10,584,167,530	37,536	13,237,891	6,229,471
Difference between January–December 2008 & January-December 2009				
2008 – 2009 (Jan – Dec)	-\$4,387,446,042	-5,136	-3,834,010	-3,041,745
Percent Change	-31.7%	-31.7%	-48.7%	-55.7%
Source: N.J. Department of Community Affairs, 2/8/10				

- New home construction declined by over 5,100 units (31.7 percent). Only 11,067 new dwellings were authorized by permits between January and December 2009. Two years ago, the number exceeded 25,000.
- For the past ten years, one of the strongest housing markets in the State has been along the Hudson River waterfront in Jersey City. This trend continued in 2009. Jersey City accounted for one in ten new houses built in the State in 2009. Between January and December 2009, the City’s construction office issued building permits for 1,129 dwellings.

Authorized Housing in Newark and Jersey City, 2001-2009 ytd					
Year	Newark		Jersey City		All New Jersey
	Authorized Units	Rank	Authorized Units	Rank	Authorized Units
2001	1,066	2	2,009	1	35,680
2002	1,223	1	907	2	34,589
2003	1,730	1	969	2	35,171
2004	1,702	2	2,156	1	39,254
2005	2,611	2	3,778	1	39,688
2006	2,125	2	2,578	1	31,709
2007	927	2	2,765	1	25,948
2008	289	6	1,468	1	16,338
2009 ytd	285	4	1,129	1	11,067
Source: N.J. Department of Community Affairs, 2/8/10					

- The City of Newark also had a strong demand for new houses in 2009, ranking fourth among all municipalities with 285 dwellings authorized by permit. As in Jersey City, Newark's strong housing market has occurred throughout most of the decade.

2008

- Last year, in 2008, big, commercial and public-works developments softened the effects of a depressed homebuilding industry. Atlantic City led all municipalities with \$594.2 million of work. Much of this was from the new casino, hotel, and parking complex for Revel Entertainment.
- Voorhees Township in Camden County had \$357.6 million of construction. A new hospital for Virtua Health network was reported with an estimated construction cost of \$300 million.
- Jersey City ranked third among localities in 2008 with \$349.2 million of work, and much of this was from a strong housing market.



Revel Entertainment casino and hotel, Atlantic City

2009

- Between January and December 2009, Jersey City had the most authorized construction among all municipalities. The estimated cost of all work reported on building permits was \$436.4 million. Nearly two-thirds of all permit activity was for new home construction.
- Franklin Township, Somerset County ranks second with \$278.8 million. Most of this was for one development, a new office complex for investment bank Morgan Stanley. The facility will have total floor area of more than 370,000 square feet.
- Newark ranked third with \$204.9 million. Rehab work on office, retail, and other existing commercial buildings accounted for almost all of the activity in the City.
- "State Buildings" refers to permits for projects reviewed at the Department of Community Affairs. They typically include large, public projects managed or constructed by State Government agencies or their instrumentalities. Since January, \$297.9 million was authorized for such projects in communities throughout the New Jersey. Many are big capital improvements at public facilities of higher education, including Stockton College, Montclair University, and Rutgers University. This figure also includes facility improvements for New Jersey Transit.

GFCI Protection in New Jersey



The National Electrical Code (NEC)/2008 was adopted, as amended, on April 6, 2009 as the electrical subcode (N.J.A.C. 5:23-3.16) of the Uniform Construction Code (UCC).

In the adoption of the NEC/2008, at N.J.A.C. 5:23-3.16(b)3i, Section 210.8(A)(2) and (5) and their exceptions from the NEC/2005, which relate to GFCI protection, **were retained.**

In NEC/2005, Section 210.8(A)(2) requires GFCI protection in “garages, and also accessory buildings that have a floor located at or below grade level not intended as habitable rooms and limited to storage areas, work areas, and areas of similar use” with the following two exceptions:

1 - Receptacles that are not readily accessible.

2 - A single receptacle or a duplex receptacle for two appliances located within dedicated space for each appliance that, in normal use, is not easily moved from one place to another and that is cord-and-plug connected in accordance with 400.7(A)(6), (A)7, or (A)(8). Receptacles installed under the exceptions to 210.8(A)(2) shall not be considered as meeting the requirements of 210.52(G).

In NEC/2005, Section 210.8(A)(5) requires GFCI protection in “unfinished basements, defined as portions or areas of the basement not intended as habitable rooms and limited to storage areas, work areas, and the like” with the following three exceptions:

1 - Receptacles that are not readily accessible.

2 - A single receptacle or a duplex receptacle for two appliances located within dedicated space for each appliance that, in normal use, is not easily moved from one place to another and that is cord-and-plug connected in accordance with 400.7(A)(6), (A)7, or (A)(8).

3 - A receptacle supplying only a permanently installed fire alarm or burglar alarm system shall not be required to have ground-fault circuit-interrupter protection.

These NEC/2005 sections continue to be part of the electrical subcode of the UCC.

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

Source: Rob Austin
Code Specialist

New NFPA Referenced Standards for the 2009 I-Codes



I have been receiving quite a few calls lately about which NFPA standards will be used once we adopt the 2009 editions of the International Code Council (ICC) model codes (I-codes). Below is a partial list from Chapter 35 of the International Building Code (IBC) and Chapter 43 of the International Residential Code (IRC) of the most commonly used referenced standards that must be used for installation *once we start using the 2009 ICC model codes*. A complete list of referenced standards can be found in Chapter 35 of the IBC and Chapter 43 of the IRC.

<u>Subject</u>	<u>Standard/Edition</u>
Portable Fire Extinguishers	10-07
Low Expansion Foam	11-05
Carbon Dioxide Extinguishing Systems	12-05
Sprinkler Systems	13-07
1&2 Family Dwellings and Manufactured Homes	13D-07
Residential Occupancies Up to and Including Four Stories in Height	13R-07
Standpipe and Hose System	14-07
Foam-water Sprinkler and Foam-water Spray	16-07
Dry Chemical Extinguishing Systems	17-02
Wet Chemical Extinguishing Systems	17A-02
Stationary Pumps for Fire Protection	20-07
Flammable and Combustible Liquids Code	30-08
Liquefied Petroleum Gas Code	58-08
Prevention of Fires and Dust Explosions in Agricultural and Food Product Facilities	61-08
National Fire Alarm Code	72-07
Fire Doors and Other Opening Protectives	80-07
Smoke Management Systems in Malls, Atria and Large Spaces	92B-05
Identification of the Hazards of Materials for Emergency Response	704-07
Clean Agent Fire Extinguishing Systems	2001-08

If you need information on the applicable edition of any other standards, please call me at (609) 984-7609.

Source: Michael Whalen
Division of Codes and Standards

Dollar Amount of Authorized Construction					
Top Performers, 2009 year to date					
Municipality	County	Estimated Cost of Construction (dollars)	Authorized Housing Units	Authorized Office Space (square feet)	Authorized Retail Space (square feet)
Jersey City	Hudson	\$436,436,533	1,129	77,990	5,400
Franklin Township	Somerset	278,821,851	139	393,090	0
Newark City	Essex	204,934,234	285	117,079	26,588
Woodbury City	Gloucester	164,002,923	1	460	0
Paterson City	Passaic	150,213,279	86	206	7,938
Toms River	Ocean	105,306,547	98	41,807	5,764
Lakewood	Ocean	98,735,713	368	84,230	5,955
Edison Township	Middlesex	88,202,530	29	57,977	161,284
Woodbridge	Middlesex	88,128,550	22	29,535	78,851
Princeton Twp	Mercer	82,165,958	20	30,588	0
State Buildings		297,895,137	0	112,566	48,536
New Jersey		\$9,446,838,643	11,067	4,035,812	2,417,629

Source: N.J. Department of Community Affairs, 2/8/10

New Home Prices

- In the fourth quarter of 2009, a total of 2,045 new houses were completed, occupied, and began enrollment in a new home warranty program.
- Five counties accounted for over half of these new houses. Ocean County had 261 new homes. Monmouth had 199. Gloucester had 185. Hudson had 179, and Bergen County had 178 new homes that began enrollment in a warranty program in the fourth quarter of 2009.
- The median sales price of the new houses built in the State during this time was \$340,521. This was a decline of 8.1 percent compared to the previous quarter.
- Somerset, Hunterdon, and Cape May Counties had the highest priced homes.

New House Prices			
Period	Number of New Houses	Median Sale Price	Percent Change in Sale Price
1998	23,884	\$209,980	10.5%
1999	24,479	\$224,496	6.9%
2000	25,058	\$231,728	3.2%
2001	23,372	\$253,670	9.5%
2002	23,647	\$274,705	8.3%
2003	22,226	\$307,168	11.8%
2004	23,844	\$349,900	13.9%

New House Prices			
Period	Number of New Houses	Median Sale Price	Percent Change in Sale Price
2005	24,571	\$378,992	8.3%
2006	22,697	\$413,825	9.2%
2007	18,397	\$424,570	2.6%
2008	13,841	\$425,000	0.1%
4 th Quarter 2007	4,155	\$410,000	-0.4%
1 st Quarter 2008	3,637	\$432,900	5.6%
2 nd Quarter 2008	4,240	\$475,000	9.7%
3 rd Quarter 2008	3,204	\$405,000	-14.7%
4 th Quarter 2008	2,760	\$380,000	-6.2%
1 st qtr 09 prelim	1,564	\$360,000	-5.3%
2 nd qtr 09 prelim	2,041	\$375,000	4.2%
3 rd qtr 09 prelim	1,726	\$370,400	-1.2%
4 th qtr 09 prelim	2,045	\$340,521	-8.1%
Source: N.J. Department of Community Affairs, 2/8/10			

Source: John Lago
Division of Codes and Standards

Permits and Prior Approvals

On May 18, 2009, the construction permit application and plan review procedures in the Uniform Construction Code (UCC) were revised with regard to prior approvals.

At N.J.A.C. 5:23-2.15(f)4ii, the UCC states that where a Department plan review is not required, an applicant for a construction permit is to file an application with the local enforcing agency. The UCC requires that all prior approvals be met before a construction permit may be obtained. However, the revised subsection (1) makes it clear that if a required State, county or local prior approval has not been granted, *plan review is to proceed* provided that the application for a permit is otherwise complete and the plan review fee has been paid. In addition, at subsection (A), an exception is included for permit applicants for plan review of individual, owner-occupied one- or two family home addition or alteration projects when zoning approval is not in place.

See Prior Approvals - page 11

Solar Photovoltaic Installations: The Board of Examiners of Electrical Contractors Explains

It seems there is considerable confusion about whether an electrical contractor's license is required for solar-photovoltaic (SPV) installations. Substantially, the question is: are SPV installations, including the SPV panels themselves, electrical work within the meaning of the regulations, so as to require an applicant for a construction permit to obtain an electrical contractor's license to perform such work? The short answer is yes; except that owners of single-family homes doing work on their own dwellings are exempt.

N.J.S.A. 45:5A-1 et seq., known as "The Electrical Contractors Licensing Act of 1962" (the Act), establishes generally that no person shall advertise, enter into, engage in, or work in a business as an

See SPV Installations - page 11

SPV Installations

continued from page 10

electrical contractor unless they have secured a business permit and a license from the New Jersey Board of Electrical Contractors (the Board).

The term "electrical contractor" is defined as a person who engages in the business of contracting to install, erect, repair, or alter electrical equipment for the generation, transmission, or utilization of electrical energy (N.J.S.A. 45:5A-2(d)). Accordingly, any person who engages in these activities is an electrical contractor by definition and is required to obtain a business permit and license from the Board.

SPV systems are, by definition, electrical work. They are a series of components that generate (the SPV panels), transmit, and/or utilize electrical energy. Any person engaged in installing, erecting, repairing, etc. such equipment must be an electrical contractor under the provisions of the Act.

The Act further sets forth a limited listing of exempt electrical work or construction that is not included in the business of electrical contracting so as to require a license and business permit under the Act (N.J.S.A. 45:5A-18). Neither SPV systems nor SPV panels are listed therein and thus are not exempt, *per se*.

Recently the Board considered this issue and concluded that SPV systems, including the SPV panels themselves, to the extent that they are used for the generation, transmission, or utilization of electrical energy, constitute electrical work within the meaning of the Act. Therefore, unless work was exempted by statute (e.g. operates at less than 10 volts, etc.), a contractor is required to obtain a license and business permit issued by the Board to install, erect, and repair, etc., SPV systems including SPV panels themselves.

Consequently, pursuant to the UCC, code officials should require permit applications for SPV systems, including SPV panels themselves, to be signed and sealed by electrical contractors holding a valid business permit issued by the Board.

Questions as to whether a licensed electrical contractor is required may be directed to either Marian or Kathleen of the Board of Examiners of Electrical Contractors at (973) 504-6410.

Source: Joseph P. Schooley, Chairman.
Board of Examiners of Electrical Contractors



Prior Approvals

continued from page 10

The UCC continues to require that *no permit may be issued* until all required State, county and local approvals are in place.

In sum,

- For an owner-occupied one- or two-family dwelling, zoning approval must have been obtained before plan review may proceed.
- For all other projects, plan review proceeds before all prior approvals have been obtained as long as the permit application is otherwise complete and the plan review fee has been paid.
- For all projects, prior approvals must be in place before a permit may be issued.

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

Source: Rob Austin
Code Assistance Unit

Solar Panels and Guards

As more and more solar panels are being installed, the Department has received many phone calls asking whether guards are required for servicing the panels. The short answer is no, guards are not required.

Section 304.10 of the International Mechanical Code (IMC)/2006 states that guards shall be provided where appliances, equipment, fans or other components *that require service* are located within 10 feet of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches above the floor, roof or grade below.

Typically solar panels installed on a roof require cleaning, but not servicing. Therefore, this section of the IMC/2006 does not require solar panels to have guards.

Finally, please note that the language in the IMC/2009 is identical to that of the IMC/2006 and will be applied the same way once the 2009 national model codes have been adopted.

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

Source: Suzanne Borek
Code Assistance Unit

Replacement and Newly Installed Electrical Panels

"Newly installed" versus "replacement." "Never there" versus "upgrade." What am I getting at, you ask? Well, it's an electrical panel being installed in an existing home. What rules from the National Electrical Code/2008 (NEC/2008) apply?

New Jersey's Rehabilitation Subcode (N.J.A.C. 6:23-6) makes it clear that there are two sections to be consulted: Section 6.8, Materials and Methods, and Section 6.9, New Building Elements.

Replacement or Upgrade: N.J.A.C. 5:23-6.8(d) specifies the sections of the NEC/2008 that are to be met when a building owner upgrades or replaces an electrical panel. For example, when the panel stays in its existing location, but is upgraded from 100 amps to 200 amps, N.J.A.C. 5:23-6.8(d) provides that NEC/2008, Sections 110.26, 110.32, 110.33, 404.8 and 408.18 are *not* required to be followed for projects of 600 Volts, nominal, or less (Section 110.32 applies when the upgrade is over 600 Volts, nominal). To further bring this point home, N.J.A.C. 5:23-6.8(d)10 states, "Existing working clearances, clear space, access and entrance dimensions to working spaces, illumination, headroom clearances, and location of overcurrent protection devices shall be allowed to remain without modification."

Newly Installed: When the electrical panel is to be installed in a new location, N.J.A.C. 5:23-6.9(a)19 states, "Newly installed (not replacing an existing device) electrical service equipment, switchboards, panelboards, motor control centers and other electrical equipment containing overcurrent, switching or control devices likely to require examination, adjustment, servicing or maintenance while energized shall conform with the requirements specified in N.J.A.C. 5:23-6.8, Materials and methods, and, in addition, shall conform with Sections 110.26 (Space About Electrical Equipment--600 Volts, Nominal or Less), 110.32 (Work Space About Equipment--Over 600 Volts, Nominal), 110.33 (Entrance and Access to Work Space), 404.8 (Accessibility and Grouping) and 408.18 (Clearances), as applicable, of the electrical subcode.

Thus, for a totally new installation of an electrical panel, at N.J.A.C. 5:23-6.9(a), New building elements, the NEC/2008 sections that were deleted by N.J.A.C. 5:23-6.8(d), Materials and methods, for replacement

Electrical Panels

continued from left

or upgrade are brought back in and are applied to the installation of a panel in a location where there never was one.

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

Source: Rob Austin
Code Specialist

US EPA Lead-Based Paint Renovation, Repair and Painting (RRP) Rules

What are the RRP Rules?

The US Environmental Protection Agency (EPA) has adopted rules for contractors performing work that disturbs lead-based paint. The rules, known as the RRP rules, apply to renovation, repair, painting or any other activity that disturbs painted surfaces. These rules require that contractors performing work in housing built before 1978 or in child-occupied facilities (schools or day care centers) be certified by the EPA. All employees performing this work must be trained in lead-safe work practices through completion of an EPA-accredited course. And the contractors must distribute a lead pamphlet before starting work. The rules exempt work that will disturb six square feet or less of paint per room in the building's interior or 20 square feet of painted surface or less on the exterior. Work in buildings that have been tested and found to be free of lead-based paint is also exempt.

We have begun to get questions now because the requirement for contractors to be certified becomes effective on April 22, 2010, two years after the date of adoption of the rules.

Who is responsible for enforcement of these rules?

States may apply to the US EPA for authorization to administer this program. The EPA is the enforcement agency in states that do not apply for authorization. New Jersey has *not* applied. This means that the EPA is the enforcement agency for the RRP rules in New Jersey.

Is the EPA certification to be treated as a prior approval for obtaining a permit under the UCC? No. Does the code official have any enforcement responsibility with regard to these EPA rules? No.

UPDATE 2 - Certification to Perform Services on Unregulated Underground Heating Oil Tank Systems

This article is updating the article that appeared in the *Construction Code Communicator*, Fall 2009. As stated in that article, any contractor who provides services on any unregulated underground heating oil tank systems and applies for a permit from a municipality to perform this work is going to be required to provide proof of certification from the New Jersey Department of Environmental Protection (NJDEP).

On January 15, 2010, NJDEP began to enforce the provisions of N.J.A.C.7:14B-16, that require all individuals and firms performing work on unregulated underground tanks to hold a certification. At the time a permit is applied for from the local municipality, a proof of certification is required for all work performed on unregulated underground heating oil tanks as defined in N.J.A.C. 7:14B-1.6.

See Unregulated USTs at right

Lead-Based Paint

continued from page 12

As stated above, enforcement rests with the EPA. This information has been provided to you so that you are aware of the new EPA requirements and are able to respond to questions from homeowners or contractors. If anyone has further questions or would like additional information, you may direct them to the EPA website at <http://www.epa.gov/lead/pubs/renovation.htm>. There is also a link on the Division's webpage.

Source: Amy Fenwick Frank
Division of Codes and Standards

Unregulated USTs

continued from left

The following are two frequently asked questions:

1. Do the certification requirements pertain to aboveground heating oil tanks?

No, the regulations only pertain to underground heating oil tanks.

2. Can a homeowner do the work themselves without the proper certification?

No, all companies and individuals performing work on unregulated heating oil tanks (underground) must be certified in the proper category. Therefore, a homeowner can perform work **only on aboveground** heating oil tanks.

Further information concerning the Unregulated Heating Oil Tank program can be found at <http://www.nj.gov/dep/srp/srp/unregulatedtanks/>.

Should you have any questions on this matter, you may contact Gary Sanderson, Program Coordinator at the Department of Environmental Protection at (609) 633-0544 or me at (609) 984-7609.

Source: Thomas C. Pitcherello
Code Assistance Unit



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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.

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Summer 2010

2010 Building Safety Conference “Lighting Our Way into the Future”

The 29th annual New Jersey Building Safety Conference was held this year from April 28th through April 30th at the Trump Taj Mahal in Atlantic City. As the theme, "Lighting Our Way into the Future," aptly suggests, the focus of this year's conference was on highlighting the many innovations and new techniques that the future will bring to ensure that our future is, indeed, safer.

At the Crackerbarrel, there were 45 tables, at which presenters covered topics that ranged from a presentation on backflow preventers to an opportunity to speak with International Code Council (ICC) Board member Steve Jones and Chief Executive Officer (CEO) Richard Weiland. Twelve seminars were held each day; they represented a wide spectrum of topics that ranged from Uniform Construction Code (UCC) updates and reports to analyses of electrical distribution systems.

One of the major events at the Conference, as always, is the opportunity to honor those whose commitment

See 2010 Building Safety Conference- page 2

Periodic Inspections Under the Uniform Construction Code

The purpose of this article is to clear up confusion surrounding the periodic testing, or inspection, or testing and inspection, of cross-connections/backflow preventers and swimming pools/spas/hot tubs. This article's target audience is Plumbing and Electrical Subcode Officials, Construction Officials and Technical Assistants.








When we speak of an inspection prefaced by the word, "periodic", or "on-going" or "maintenance" under the UCC, we are speaking about the routine and regularly occurring inspection of equipment that creates a significant potential hazard to public health and safety.

These inspections are not to be confused with inspections carried out during the progress of work on a construction project for which a Construction Permit has or should have been issued.

Equipment such as elevator devices, high pressure boilers, pressure vessels, refrigeration systems, cross-connections/backflow preventers, sprinklers/ standpipes, smoke control systems in open wells, underground storage tanks, swimming pools/spas/hot tubs, fire

See Periodic Inspections - page 4

In This Issue

2010 Building Safety Conference	1	Periodic Inspections Under the Uniform Construction Code  	1
Bills and Laws	8	Rehabilitation Subcode: Application of Basic and Supplemental Requirements	7
Classifying a Rehabilitation Project	9	Required Annual Backflow Preventer Testing 	8
Correction -The NJ State Permit Surcharge (Training) Fee: Charge or No Charge?	7	Roof Access Hatch 	3
Equipotential Bonding and the NEC/2008 	5	Use of Solid Fuel Appliances in Commercial Cooking Applications  	3

2010 Building Safety Conference

continued from page 1

and dedication over the past year is recognized by their associations- the Inspectors and Technical Assistant of the Year. Congratulations to all for your hard work and well deserved awards!

Cynthia Wilk, Director of the Division of Codes and Standards, and the association presidents, presented the following awards:

New Jersey Association of Technical Assistants
Technical Assistant of the Year
Lucia Camporeale

Building Officials Association of New Jersey
Building Inspector of the Year
Salvatore J. DeSimone

New Jersey State Plumbing Inspectors Association
Plumbing Inspector of the Year
Michael G. Baker

New Jersey Fire Prevention and Protection Association
Fire Protection Inspector of the Year
Richard A. Soltis, Jr.

Municipal Electrical Inspectors Association of New Jersey
Electrical Inspector of the Year
Jean F. Verrier

The Building Safety Conference provides a valuable opportunity not only to gain a better understanding of new code provisions and construction techniques, but also to allow for a chance to share ideas and experiences, fostering fellowship amongst our peers. The reception to honor the awardees gives us all a chance to offer congratulations to the award recipients. The inspector and technical assistant associations were of particular help this year, providing assistance in making our awards reception memorable- a special thanks to all involved!

The Building Safety Conference provides the chance to enhance your educational opportunities and receive information on important and cutting edge topics. If anyone has suggestions for next year's conference, please contact us at educationunit@dca.state.nj.us.

We are looking forward to seeing everyone again next year when we meet again at the Taj Mahal on April 27-29, 2011. Hope to see you there!

Source: John Delesandro
Licensing & Education

See 2010 Building Safety Conference at right

2010 Building Safety Conference

continued from left



Above, NJATA's 2010 honoree Lucia Camporeale (c.) is accompanied by association President Linda Aiello (r.) and the Director of the Div. of Codes and Standards, Cynthia A. Wilk (l.).



Above, BOANJ's 2010 honoree Salvatore J. DeSimone (r.) accompanied by last year's honoree, Martin Vogt (l.).



Above, NJPIA's 2010 honoree Michael G. Baker (r.), accompanied by NJPIA President Thomas McGonigle (l.) and the Director of the Div. of Codes and Standards, Cynthia A. Wilk (c.)

See 2010 Building Safety Conference- page 3

2010 Building Safety Conference

continued from page 2



Above, NJFP&PA's 2010 honoree Richard A. Soltis, Jr. (l.) accompanied by NJFP&PA President Stanley Sickels (r.) and the Director of the Div. of Codes and Standards, Cynthia A. Wilk (c.)



Above, MEIA's 2010 honoree Jean F. Verrier (l.) is accompanied by 1st Vice President Ed Reed (r.) and the Director of the Div. of Codes And Standards, Cynthia A. Wilk (c.).



Above, all 2010 honorees.

Roof Access Hatch

Are all roof access hatches required to comply with International Building Code (IBC)/2006, Section 1009.11, entitled "Stairway to roof"? The answer is "NO."

For buildings with an occupied roof, including roof gardens, observation decks, tennis courts or swimming pools, a code compliant stairway must be provided with a penthouse that complies with Section 1509.2, entitled "Penthouses."

For buildings with an unoccupied roof, Section 1009.11 requires buildings located four or more stories in height above grade plane, with a roof surface that has a slope of four units vertical in 12 units horizontal (33% slope) or less, to have one stairway that extends to the roof surface. Access to the roof from the top story is permitted to be by an alternating tread stairway. In addition, the exception to Section 1009.11.1, entitled "Roof Access," provides that access to the roof shall be permitted to be by a roof hatch or trap door with an area that is not less than 16 square feet with a minimum dimension of 2 feet. It is important to remember that this provision is applicable only to a *required* access to an unoccupied roof.

If the building is less than four stories in height above grade plane, access to an unoccupied roof is not required. If the design professional or building owner chooses to provide roof access, compliance with these code sections is NOT mandatory and there is no applicable minimum or maximum size for the roof access hatch.

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

Source: Marcel Iglesias
Code Assistance Unit

The Use of Solid Fuel Appliances in Commercial Cooking Applications

The Department has received the following question concerning the installation of solid fuel fired barbecue appliances in a commercial kitchen: "Can a wood- or charcoal-fueled barbecue appliance that is not listed and labeled be installed in a commercial kitchen?" The answer is: Yes, and here is why.

See Solid Fuel Appliances- page 4

Periodic Inspections

Continued from page 1

alarms, LPGas Tanks, and other hazardous uses/places of assembly may be considered equipment creating (or signaling) a significant potential hazard to public health and safety. This list should be familiar to you; it is the listing of items whose inclusion in a construction project must be declared during the permitting process on the Construction Permit Application under section IV – DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?

In the instance of elevators devices¹, cross-connections/backflow preventers and swimming pools, spas and/or hot tubs¹, that periodic ...or maintenance ...or on-going inspection is **YOUR** responsibility under the UCC.

Do not, however, be confused by that declaration during the permitting process. While it will enable your office to identify and track additional items requiring on-going inspections, do not infer from their reference in that portion of the Construction Permit Application (CPA) that a Construction Permit should be issued to conduct these on-going inspections; it should not.

When these items are installed as a part of a construction project, at the conclusion of that project, in addition to a Certificate of Occupancy or Approval issued, a Certificate of Compliance is also issued for the elevator, cross-connection/backflow preventer or swimming pool/spa/hot tub device. That Certificate of Compliance will reflect an expiration date. The approach of that expiration date should signal the need to conduct a periodic inspection.

To ensure successful Periodic Inspection management, this is what your office should be doing:

- Build and/or maintain your registry, i.e., inventory, of devices requiring periodic inspection by using the On-going Inspections log (UCC-L730), and completing one On-going Inspection Control Card (UCC-F290) for each device following Municipal Procedure 7.1.1.

Maintain the On-going Inspections log and tickler file. Devices constructed/installed on Permits issued before the municipality’s creation of the registry must also be identified and added to the registry. Additional devices are identified and added to the registry through the declaration of those devices on the Construction Permit Application’s section IV.

See Periodic Inspections at right

Periodic Inspections

Continued from left

- Monitor on-going inspections by:
 - Reviewing the tickler file,
 - Identifying inspections required, and
 - Ensuring the appropriate subcode official is aware of those required inspections.
- Schedule and perform inspections and/or ensure required testing has been done by obtaining a copy of the testing certification.
- Collect the fee, complete the paperwork, prepare and distribute a Certificate of Compliance, and file the required and resulting documents in the central filing system.

This is what your office should not be doing:

- Do **NOT** issue Construction Permits for the purpose of conducting on-going inspections.

In support of the above, Bulletins 99-1 and 99-2 have been reviewed and clarification will be added where appropriate. Further, procedures 5.1.1, 7.1.1, 7.2.2 and 7.2.3 of the Municipal Procedures Manual will be revised to incorporate that clarity. And finally, a model Annual Pool/Spa/Hot Tub Inspection Notice, and a model Testing of Backflow Preventer Annual Reminder will be added to the Codes and Standards Information and PermitsNJ Document Library folders for ready access by those licensed Construction and Subcode Officials and Technical Assistants wishing to make use of those models. Watch for these changes.

Source: Berit Osworth
Division of Codes and Standards

Footnotes

¹ Jurisdiction for the periodic inspection of elevator devices may have been assumed by the DCA’s Elevator Safety unit.

² Not associated with one- or two-family dwellings.

Solid Fuel Appliances

Continued from page 3

Section 906 of the International Mechanical Code (IMC)/2006, entitled “Factory-built Barbecue Appliances,” requires these appliances to be installed in accordance with Chapters 3, 5, 7, 8 and 9. Additionally, when the appliance contains an auxiliary fuel gas supply, it must also meet the requirements of the International Fuel Gas Code (IFGC)/2006. Section 623.1 of the IFGC, entitled “Cooking Appliances,” requires that fuel gas appliances that are designed for permanent installation be tested in accordance with ANSI Z21.1, ANSI Z21.58 or ANSI Z83.11 and be installed in accordance with the manufacturer’s installation instructions. For more information on the

See Solid Fuel Appliances - page 5

Solid Fuel Appliances*continued from page 4*

installation of fuel gas appliances, such as fuel supply connections and combustion air, you should refer to the appropriate IFGC sections. The purpose of this article is to focus on the IMC requirements.

Section 906.1 of the IMC entitled "General," requires that the solid fuel fired barbecue appliance be of an *approved* type and installed in accordance with the manufacturer's installation instructions. As defined in Section 202 of the IBC/2006, the word *approved* means "acceptable to the code official or other authority having jurisdiction." The building and fire subcode officials must review the plans for the installation of these appliances and the building subcode official has inspection responsibility for the installation of the appliance only. A barbecue appliance that is factory-built is NOT required to be listed and labeled and the code official has the authority to approve its installation. The manufacturer's installation instructions must be followed for clearances and location.

From an exhaust standpoint, Section 507.2.1 of the IMC/2006, entitled "Type I hoods" requires a Type I hood to be installed where the cooking appliance produces grease or smoke. Clearly, a wood- or charcoal-fueled barbecue appliance produces smoke; therefore, a Type I hood is required to be installed over the appliance. Furthermore, the definition of "Extra Heavy Duty Cooking Appliances" in Section 202 of the IMC/2006 includes solid fuel burning appliances as such. Section 507.2.4 of the IMC/2006, entitled "Extra-heavy-duty," states that the hood may not cover any other cooking appliance that requires a hood with a fire extinguishing system. Additionally, the exhaust from the hood covering the barbecue appliance must be independent from all other exhaust systems. "Solid Fuel Cooking Applications" are defined in Section 202 of the IMC/2006 as a commercial food service operation burning hardwood, mesquite, charcoal, or briquettes as the heat source for the cooking operations.

Section 507.13.1 of the IMC/2006, entitled "Extra-heavy duty cooking appliances," requires minimum exhaust ventilation between 550 to 700 CFM per linear foot of hood for these operations depending on the type of canopy installed. Section 508.1 of the IMC/2006, entitled "Makeup air," requires that makeup air must be approximately equal to the exhaust air flow.

If you have any questions, please feel free to call me at (609) 984-7609.

Source: Michael E. Whalen
Code Assistance Unit

Equipotential Bonding and the NEC/2008



In the National Electrical Code (NEC), the purpose of the section on pool bonding has remained consistent: to reduce or eliminate voltage gradients in pool areas. That said, the change in language in the NEC/2005 caused some confusion regarding Section 680.26, "Equipotential Bonding," when the word "Equipotential" was added to the title (which had been "Bonding") and requirements were added to the code. An article in the Summer/Fall 2007 *Construction Code Communicator* attempted to clarify the equipotential bonding requirements of NEC/2005. This article attempts to clarify the equipotential bonding requirements of the NEC/2008. This appears to be particularly confusing because of the way that the sections were subdivided.

1. Pool Shells, NEC/2008 Article 680.26(B)(1) – Conductive pool shells consist of poured concrete, pneumatically applied or sprayed concrete, or concrete block with painted or plastered coating materials. Non-conductive pool shells include vinyl liners and fiberglass composite materials.

(a) – Typically, structural reinforcing steel is used in the conductive pool shells listed above. To be considered bonded, unencapsulated structural reinforcing steel is permitted to be secured together by steel tie wires.

(b) – When the pool reinforcing steel is encapsulated in a nonconductive material (coated rebar), then the bonding requirements, which are summarized in 1a above, no longer apply; however, a copper conductor grid must be installed within or under the pool and no more than 6 inches from the outer contour of the pool shell. The grid must be constructed of at least a #8 AWG bare solid copper conductor bonded to each other at all crossing points, and arranged in a 12 inch by 12 inch (12" X 12") grid with a tolerance of 4 inches.

2. Perimeter Surfaces, NEC/2008 Article 680.26(B)(2) – The NEC/2008 requires that ANY surface (e.g. soil, grass, concrete, pavers, etc.) around the pool or outdoor spa/hot tub must have equipotential bonding.

(a) – Unencapsulated structural reinforcing steel (summarized in 1a above) installed in a perimeter surface that extends three (3) feet from the pool wall is required to be bonded back to the pool shell at four (4) uniformly spaced points around the pool.

(b) – When the perimeter surfaces contain

Equipotential Bonding

continued from page 5

reinforcing steel encapsulated in a nonconductive material (coated rebar), or when the pool is fiberglass, or vinyl, then a copper conductor that meets the following must be used: (1) a minimum of a #8 AWG bare solid copper bonding conductor that follows the contour of the perimeter surface between 18 and 24 inches from the inside walls of the pool; (2) the bonding conductor shall be secured within (i.e. paved surface) or under the perimeter surface 4 to 6 inches below the subgrade (soil); and (3) listed splicing devices must be used.

3. Pool Water, Article 680.26(C)– This section requires a minimum conductive surface area of 9 square inches to be installed in contact with the pool or outdoor spa/hot tub. For example, the metal handrails of a ladder may be used as long as a minimum of 9 square inches is submerged in the pool in contact with the water. If there is no ladder (or other conductive surface), a component that

See Equipotential Bonding at right

Equipotential Bonding

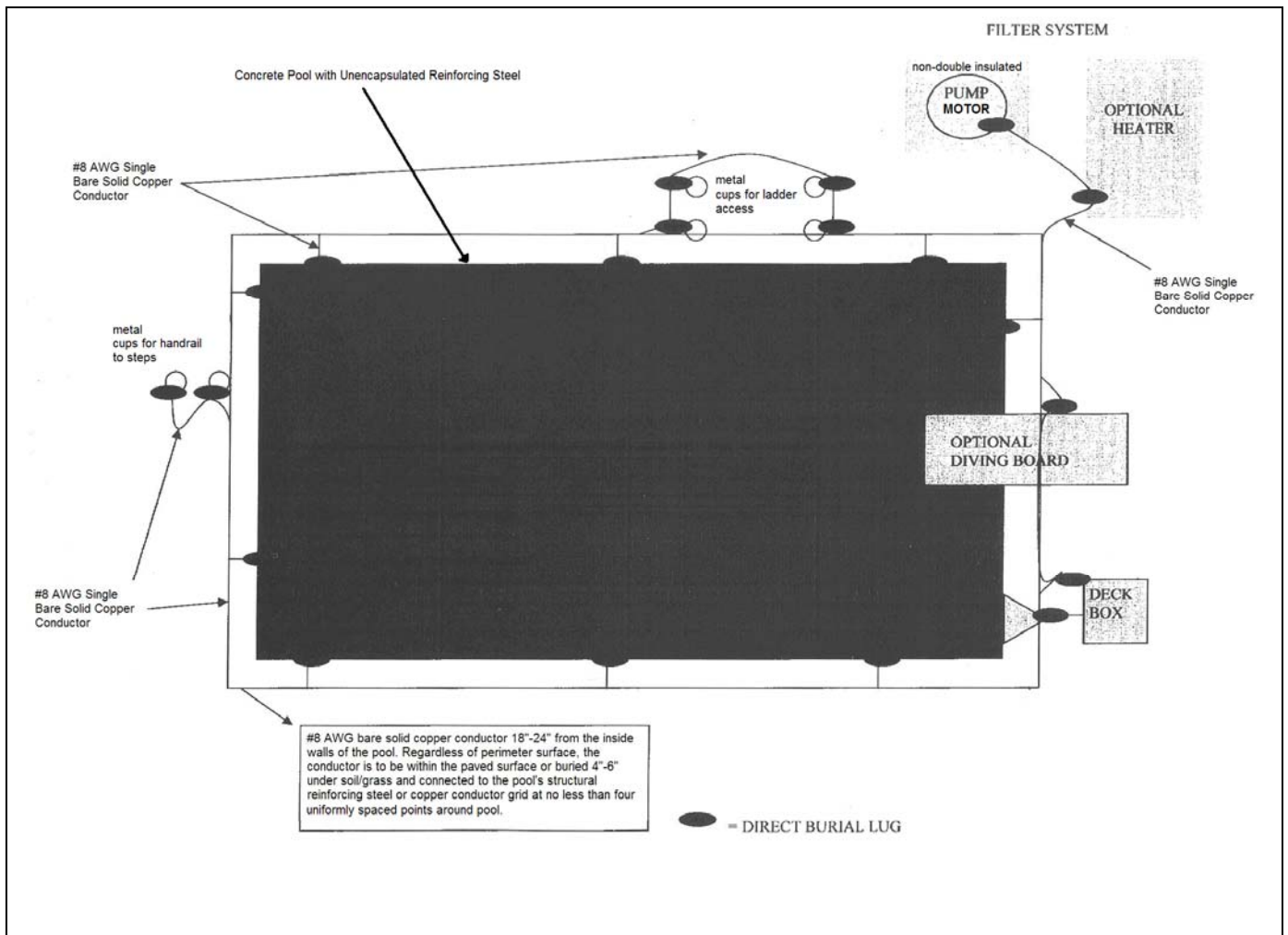
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meets the requirements of this section may be used. Please keep in mind that there are other items that are part of the equipotential bonding system that are not discussed in this article. As per Section 680.26(B), the following are also included, as applicable: metallic components, underwater lighting, metal fittings, electrical equipment, and metal wiring methods and equipment.

An example of typical equipotential bonding setup for an unencapsulated reinforced steel inground pool is provided below as a convenient accompaniment to this article. Please note that the graphic is an illustration only and is not a substitute for the code text.

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

Source: Rob Austin and Suzanne Borek
Code Assistance Unit



Rehabilitation Subcode: Application of Basic and Supplemental Requirements



Rehab Subcode

Continued from left

The Department has received some specific questions on how to apply the basic and supplemental requirements in a rehabilitation project. N.J.A.C. 5:23-6.7(i) and (j) specifies how basic and supplemental requirements apply to a reconstruction project. When a project is a reconstruction project (N.J.A.C. 6:23-6.7), the applicable requirements are found at N.J.A.C. 5:23-6.10 through 6.30 based on occupancy group. So, for example, if I were performing a reconstruction project in a Group B building, I would be required to meet the requirements of N.J.A.C. 5:23-6.7 (Reconstruction), 6.10 (Basic requirements and supplemental requirements—general), 6.11 (Basic requirements in all Groups), 6.17 (Basic requirements--Group B), 6.17A (Supplemental requirements--Group B) and, as applicable, 6.8 (Materials and Methods), 6.9 (New Building Elements), 6.29 (Mixed use buildings) and 6.30 (Special technical requirements--all groups).

Now, the real reason for this article is that, from my experience, users of the Rehabilitation Subcode tend to skip over N.J.A.C. 5:23-6.10. Although it is not a large section, it does contain some specific scoping requirements that can come back to haunt you if they are overlooked. An example might help. If the Group B building undergoing a reconstruction is a high rise and the scope of work involves portions of the 7th floor, there will be a question as to whether a sprinkler system is required. In the supplemental requirements for Group B, at N.J.A.C. 5:23-6.17A(c)5, the sprinkler provisions are: "Automatic Sprinkler System: When the work area is an entire floor, an automatic sprinkler system shall be installed on that floor. When an automatic sprinkler system is provided, the sprinkler riser shall be sized to serve the entire building, even if the system currently being installed serves only a portion of the building. (Fire)." Because this project involves only portions of the 7th floor, it appears that the sprinkler system is not required.

At this point, the Rehabilitation Subcode has been applied as follows: At N.J.A.C. 5:23-6.7(i) and (j), a reconstruction project in Group B is required to meet the basic and supplemental requirements. Group B basic requirements are located at N.J.A.C. 5:23-6.17 and Group B supplemental requirements are located at N.J.A.C. 5:23-6.17A. However, there is one more section to review. Before consulting the basic and supplemental requirements for Group B, you must

first apply the requirements of N.J.A.C. 5:23-6.10, Basic requirements and supplemental requirements—general. More specifically, N.J.A.C. 5:23-6.10(b)1 states, "All reconstruction work begun within a single 12 month period shall be considered for determining the applicability of the supplemental requirement." Therefore, as far as the reconstruction project on the 7th floor of the Group B building is concerned:

- (a) If the reconstruction project on the 7th floor is the only reconstruction project to be undertaken on that floor during the past 12 months, then the work area for the project in question is not the entire floor and the sprinkler system requirement does not apply.
- b) If the reconstruction project on the 7th floor is one of two or more (multiple) reconstruction projects that have been undertaken on that floor during the past 12 months and if the work areas of the multiple projects add up to the entire floor, then the sprinkler system requirement does apply.

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

Source: Rob Austin
Code Assistance Unit

Correction: The New Jersey State Permit Surcharge (Training) Fee: Charge or No Charge?

This is a correction to the article entitled, "The New Jersey State Permit Surcharge (Training) Fee: Charge or No Charge?", which was published in the Spring/Summer 2009 *Construction Code Communicator* (CCC).

Subsequent to its publication, an inconsistency with other CCC articles on the subject of permit surcharge fees was discovered; a further and closer review of N.J.S.A. 52:27D-130.2 revealed that the previous articles were correct on the subject of whether or not a surcharge applies to the installation or alteration of solar energy heating or cooling systems.

Required Annual Backflow Preventer Testing

On September 8, 2009, N.J.A.C. 5:23-2.23(l)4 was amended to require that all backflow preventers that are designed to be tested and that are used to isolate sources of contamination as defined in the plumbing subcode must be tested every 12 months. In the past, only testable backflow preventers that were connected to a high hazard source were required to be tested annually. There is an exception for a testable backflow preventer that is installed on the water supply for a one- and two-family dwelling, which would require yearly testing only when isolating a high source of contamination.

In the plumbing subcode, Section 10.5.6 b of the National Standard Plumbing Code/2006 states: "devices that are designed to be field tested shall be tested prior to final inspection of the initial installation and once each year thereafter..."

It is the responsibility of the local enforcing agency (LEA) to keep track of backflow preventers and to notify the building owner that, to remain in compliance, they must be tested every 12 months by a certified backflow preventer tester. The tester must then obtain a Certificate of Compliance. The plumbing inspector or subcode official has the option of either witnessing the test and receiving the performance test certification or simply obtaining the performance test certification.

There are many municipalities that have already implemented recordkeeping. There are programs that will allow the tracking and recordkeeping and will generate reminders that the yearly test is due.

The Department is updating Bulletin 99-2, Testing of Backflow Preventers. The updated bulletin will include a model reminder letter that can be used to notify owner of a property at which the annual backflow preventers need to be tested.

NOTE: Also consult the article "Periodic Inspections under the Uniform Construction Code" in this issue of the *Communicator*.

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

Source: Thomas C. Pitcherello
Code Assistance Unit

State Permit Surcharge (Training) Fee continued from page 7

Bullet number 6 from the Spring/Summer issue article stated that no training fee or permit fee surcharge fee shall be charged where the construction permit was for the installation or alteration of solar energy heating or cooling systems. That is not true.

While it is true that the Uniform Construction Code Act does still contain N.J.S.A. 52:-27D-130.2 (P.L. 1985, c.85), which does exempt "solar energy heating and cooling systems" from construction permit fees and surcharges, N.J.S.A. 52:27D-130.2 refers to a system certified as eligible for property tax exemption under P.L. 1977, c. 256 (C. 54:4-3.113 et seq.). Since P.L. 1977, c. 256 expired on December 31, 1987, there are no longer installations of systems that are so certified.

Therefore, please disregard bullet number 6 of the Spring/Summer 2009 article entitled, "The New Jersey State Permit Surcharge (Training) Fee: Charge or No Charge?", and resume assessing the permit surcharge (training) fee in these instances.

Source: Berit Osworth
Division of Codes and Standards

Bills and Laws

How many code officials and technical assistants have been asked about legislation that is currently being heard --or was heard—in Legislative hearings? I'm sure many. But the question remains, do you know where to find the information and how to search for it? The key is <http://www.njleg.state.nj.us/>.

If you go to this website, you can search for bills as far back as 1996. There is a "Bill Search" on the right-hand side of the webpage, but, if you know the specific year, you can use the left-hand side. I'll demonstrate this through an example and search for Bill S2265 of Legislative Session 2008-2009, which requires developers to offer solar energy systems in certain new home construction.

There are two ways to search for a specific bill. The first way applies to bills currently under consideration and to bills introduced and considered in past Legislative sessions. The second way applies to current bills only.

Bills and Laws

continued from page 8

First, starting on the left-hand side of the website, click on "Bills 2008-2009". This will bring you to another page. Click on "Bill Number" and enter "S2265". From my search, I found that S2265 was substituted by A1558 and signed into law on 3/31/2009 as P.L.2009, c.33. If desired, you can search for this law under "Chapter Laws 2009."

Second, for bills under consideration in the current legislative session, starting on the right-hand side of the website, you may type the bill number into the search section. That search will yield the current status.

Hopefully this is helpful the next time your township administrator, zoning officer, tax assessor, etc. comes running to you for information on how to find a bill pending before the Legislature.

Source: Rob Austin
Code Assistance Unit

Classifying a Rehabilitation Project

We've been receiving an increasing number of calls regarding the Rehabilitation Subcode, N.J.A.C. 5:23-6, and how to classify projects. As you all should be aware, the Rehabilitation Subcode is divided into escalating categories of work: Repair, Renovation, Alteration and Reconstruction. The following are two examples in an attempt to help you classify rehabilitation projects properly. These stories might or might not be based on personal experiences.

1. *Sibling Spat:* Robbie, age 11, and younger brother Matt, age 7, are playing a game of tag in the back yard. In a game of tag, Robbie runs away from his brother Matt and heads into the house locking the door behind him. This upset Matt and it didn't help that his older brother was laughing at him from the other side of the door. So Matt put his fist through the glass portion of the door. Now...how could Robbie and Matt's Dad fix this? Dad could:

See Classifying Rehab at right

Classifying Rehab

continued from left

- a) Leave the door assembly and replace the window pane – Repair.
- b) Replace the entire door – Renovation.
- c) Look at this as an opportunity to complete one of his "Honey-Do" tasks and enlarge the opening to install French doors – Alteration.
- d) Say, "What the heck, let's redo the whole house and gut this place!" – Reconstruction.

2. *Parents Know Best:* Heather, age 15, and Dad, age 40-something, were having a conversation about her desire to go to a friend's house and hang out. Dad said "no." Heather became so upset that she kicked a hole in the half-wall between the kitchen and the dining room. Knowing that this would upset Mom, Dad and Heather came up with a quick fix and made sure the lights were off when Mom returned home that evening. Taking Mom out of the equation, what could Dad have done? Dad could:

- a) Go to the hardware store, buy a sheetrock patch, spackle and touch-up paint – Repair.
- b) Replace the remaining plaster where the hole was with sheetrock– Renovation.
- c) Look on this as an opportunity to complete one of the "Honey-Do" tasks and knock down the half-wall between the kitchen and dining room and combine the two rooms – Alteration.
- d) Say, "What the heck, let's redo the whole house and gut this place!" – Reconstruction.

You need to consult N.J.A.C. 5:23-2.7(c) to determine whether a permit is required. If a permit is required, you need to consult N.J.A.C. 5:23-2.23 to determine whether the project would require a Certificate of Approval (e.g. alteration) or a Certificate of Occupancy (e.g. reconstruction).

Please feel free to contact the Code Assistance Unit at (609) 984-7609 if you have any questions.

Source: Rob Austin
Code Assistance Unit

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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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Fall 2010

A Fond Farewell to Director Cynthia A. Wilk

Cynthia A. Wilk, Director of the Division of Codes and Standards, recently retired from State government after 36 years of service. Over the course of her career, Cindy has had a hand in virtually every major initiative undertaken by the Division. She has also served as President of the National Conference of States on Building Codes and Standards, Chair of the Board of Visitors of the National Fire Academy and as a member of the panel issuing the report *America at Risk*, a reexamination of the issues raised in the *America Burning* report. Her tenure as director has been marked by her willingness to listen with an open mind and by her strong support for local code enforcement. We all join in wishing Cindy a long, happy and healthy retirement.

She will be missed!

Source: Division Staff















Welcome, Director Edward M. Smith

Edward M. Smith has been appointed Director of the Division of Codes and Standards by Commissioner Lori Grifa. While new to government, Ed is not new to construction. He brings to the job 28 years of experience in construction management. A proponent of team-based initiatives, Mr. Smith is looking forward to working with the code enforcement community. Upon accepting this position, Ed said, "I am honored that the Commissioner has placed her confidence in me. I look forward to working with all of the individuals and organizations involved in code enforcement to ensure that we continue to serve the public well during these challenging times."

Welcome aboard, Ed!

Source: Director's Staff

In This Issue

Are Tenant Separations Required? 	4	NSPC 2009 –Member Price Available 	16
Census Item Numbers	7	NSPC/2009 Update 	5
Construction Reporter: August 2010 Highlights	10	Ordinary Maintenance Does Not Mean No Rules	15
Drinking Water Facilities 	4	Ordinary Maintenance –Plumbing Fixture Replacements 	11
Energy Subcode Compliance with IECC/2009 and ASHRAE 90.1-2007 	2	Residential Swimming Pools: UPDATE 2 	6
Happy Retirement Cynthia A. Wilk	1	Structural Integrity for High-rise Buildings –New Section in IBC/2009 	14
Information about Available Training for Lead Safe Work Practices	9	To Vent or Not to Vent? 	13
Introducing the New and Improved Codes and Standards Internet Website	8	Welcome, Edward Smith	1
List of Registered Builders	15	What's New in the IBC/2009? 	12
NEC and the Rehab Subcode 	13	What's New in the IRC/2009? 	17
New Requirements for Smoke Alarms  	8		

Energy Subcode Compliance with the 2009 IECC and 2007 ASHRAE 90.1

On September 7, 2010, the 2009 International Energy Conservation Code (IECC) and the 2007 American Society of Heating, Refrigeration, Air-conditioning Engineers (ASHRAE) Standard 90.1 were adopted as the Energy Subcode, N.J.A.C. 5:23-3.18. What does this mean for demonstrating compliance with the newly adopted codes? Actually, not much has changed; the compliance options remain pretty much the same as those of the past codes.

Per N.J.A.C. 5:23-2.15(f)1vi, the Uniform Construction Code (UCC) requires applicants to demonstrate compliance with the Energy Subcode as part of the permit application process for a newly constructed building or an addition. (Buildings that are not heated or cooled do not have to meet the Energy Subcode and rehabilitated buildings have their own requirements per N.J.A.C. 5:23-6.) Compliance methods vary depending on climate zone and building type. The Energy Subcode separates the State into two climate zones as follows:

Zone 4 – Atlantic, Burlington, Camden, Cape May, Cumberland, Essex, Gloucester, Hudson, Middlesex, Monmouth, Ocean, Salem and Union counties;

Zone 5 – Bergen, Hunterdon, Mercer, Morris, Passaic, Somerset, Sussex and Warren counties.

Also, the Energy Subcode divides buildings into two categories: low-rise residential and commercial (which includes all buildings that are not low-rise residential).

PERMIT APPLICATION/PLAN REVIEW

The following is a description of the alternatives for documenting energy subcode compliance at the time of permit application.

Low-rise residential buildings are defined as one- and two-family dwellings or multiple-family buildings that are three stories or less in height. Compliance with the Energy Subcode and the International Energy Conservation Code (IECC)/2009 for these buildings must be demonstrated in one of four ways:

1. COMPLIANCE WITH CALCULATIONS: This has been the traditional way that compliance with energy codes has been shown. It involves calculating the “U” value (thermal transmittance) of the various building components (walls, floors, roofs, etc.) and showing that they are less than the code-specified maximum for the components. Guidance on how to perform the calculations can be found in the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE) Handbook of Fundamentals.

2. COMPLIANCE WITH RESCHECK SOFTWARE: The software program performs the calculations based on

input about the shape and size of the building, the type of insulation and windows and the type of equipment that the applicant proposes to use. The software is available as a free download from the web site: <http://www.energycodes.gov>. The IECC/2009 version of the software should be used and can be selected under “Code” in the menu bar at top. The software simply requires the input of the areas of the various components, the R value of insulation, and the U value of windows and doors. The software automatically gives tradeoffs. A compliance report is generated by the software program, which can be submitted with the permit application. It must meet or exceed the IECC/2009 (i.e. passes) based on the applicable climate zone location.

3. COMPLIANCE WITH NJ ENERGY STAR HOMES: This program is sponsored by the New Jersey Board of Public Utilities through its Clean Energy Program

(<http://www.njenergystarhomes.com>). The program provides incentives for projects that exceed the Energy Subcode. A letter of enrollment (typically the “builder’s acknowledgement” letter) from the local utility company (or its consultant) should be submitted with the permit application when the applicant is using this compliance option. Inspections for this program are handled by the utility company or its consultant, except that IECC/2009. Section 403, entitled “Systems,” must be verified by the local construction office. The application for a new home’s Certificate of Occupancy should include the Home Energy Rating Scale certificate or equivalent (i.e., passing final inspection report).

NOTE: Homes built and certified to federal (Department of Energy/Environmental Protection Agency—DOE/EPA) Energy Star standards and verified by a certified rater would also be in compliance. Acknowledgement of program participation must be submitted at the time of the permit application and a Home Energy rating certificate or equivalent must be submitted to the local construction official at the time of application for a certificate of occupancy.

4. COMPLIANCE WITH PRESCRIPTIVE PACKAGE: Previous adoptions of the energy subcode allowed the use of a prescriptive package based on climate zone location and window-to wall ratios. However, the days of many options are gone. The following are the applicable portions of Table 402.1.1 of the IECC/2009 that can be applied as a prescriptive package. With this option, the applicant

Energy Subcode Compliance

continued from page 2

need only identify he/she is using the prescriptive package and show the corresponding details on the plans. If a proposed building has window percentages and U values (a measure of the windows' efficiency) that are equal to or lower than the values found on the line in the appropriate chart, and R values and equipment efficiencies that are equal to or higher than those listed in the chart, the building complies.

INSULATION & FENESTRATION REQUIREMENTS BY COMPONENT ^a										
Climate Zone	Fenestration U-Factor ^b	Skylight U-Factor ^b	Glazed Fenestration SHGC ^b	Ceiling R-Value	Wood Frame Wall R-Value	Mass Wall R-Value ⁱ	Floor R-Value	Basement Wall R-Value ^c	Slab R-Value ^d & Depth	Crawl Space Wall R-Value ^c
4	0.35	0.6	NR	38	13	5/10	19	10/13	10, 2 ft	10/13
5	0.35	0.6	NR	38	20 or 13+5 ^h	13/17	30 ^g	10/13	10, 2 ft	10/13
a. R-values are minimums. U-factors and SHGC are maximums. R-19 batts compressed into a nominal 2 x 6 framing cavity such that the R-value is reduced by R-1 or more shall be marked with the compressed batt R-value in addition to the full thickness R-value.										
b. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.										
c. "10/13" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.										
d. R-5 shall be added to the required slab edge R-values for heated slabs.										
g. Or insulation sufficient to fill the framing cavity, R-19 minimum.										
h. "13+5" means R-13 cavity insulation plus R-5 insulated sheathing. If structural sheathing covers 25 percent or less of the exterior, insulated sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2.										
i. The second R-value applies when more than half the insulation is on the interior of the mass wall.										

Keep in mind, this Table 402.1.1 is for typical wood-framed construction. Steel-framed construction equivalents can be found in Table 402.2.5 of the 2009 IECC.

Regardless of the compliance method chosen, the documentation must be signed and sealed by a design professional for all buildings. The documentation may be signed by the mechanical contractor for Class 3 buildings, as defined at N.J.A.C. 5:23-4.3A(d). A single-family detached homeowner who resides or intends to reside in the home may sign the energy code compliance documentation.

Commercial buildings are defined as all buildings other than low-rise residential buildings. These must demonstrate compliance in one of two ways (compliance is in accordance with the Energy Subcode and ASHRAE Standard 90.1-2007):

1. COMPLIANCE WITH CALCULATIONS: This is very much like the calculations for low-rise residential buildings mentioned above. However, the applicant must also provide information on the type of lighting installed and its usage.

2. COMPLIANCE WITH COMCHECK SOFTWARE: This is very much like the REScheck software mentioned above. However, the applicant must include the type of lighting installed and its usage. The software is available as a free download from the web site: <http://www.energycodes.gov>. The ASHRAE Standard 90.1-2007 software should be used and can be selected under "Code" in the menu bar at top. A compliance report is generated by the software program, which can be submitted with the permit application. It must meet or exceed the ASHRAE 90.1-2007 (i.e. passes) based on the applicable climate zone location.

Regardless of the compliance method chosen, the documentation must be signed and sealed by a design professional for all buildings. The documentation may be signed by the mechanical contractor for Class 3 buildings, as defined at N.J.A.C. 5:23-4.3A(d).

Energy Subcode Compliance

continued from page 3

INSPECTION (Low-Rise Residential)

The requirement to verify that the insulation specified on the plans is the insulation installed is not new. The IECC/2009 does include new requirements for verifying the sealing (air tightness) of the building thermal envelope through either a visual inspection or a blower door test. The IECC/2009 also includes a requirement to verify duct tightness through an air leakage test. This requirement does not take effect until January 1, 2013.

Insulation -- With the exception of those homes that are enrolled in the NJ Energy Star Homes Program (where compliance is verified by a third party), inspectors should verify that the insulation levels installed in all buildings match the insulation levels used in the calculations, found in the REScheck or COMcheck printout, or shown in the Prescriptive Package table, as applicable. Other Energy Subcode requirements, such as piping and ductwork insulation, are still applicable in all cases. More specifically, when ductwork is installed within a low-rise residential building, supply ducts in attics are to be insulated to a minimum of R-8 when outside the building thermal envelope and all other ducts are to be insulated to a minimum of R-6 when outside the building thermal envelope.

Sealing -- Previous editions of the Energy Subcode were not specific about the requirements for the sealing of the building thermal envelope and ductwork. With the adoption of the 2009 IECC, new sealing requirements have been added, and to differentiate from the past editions of the energy subcode, the word "tightness" is used along with sealing.

See Energy Subcode Compliance-continued at right

Drinking Water Facilities –  Plumbing Subcode Requirements

I have received several questions about the provisions of the National Standard Plumbing Code (NSPC), which, in Table 7.21.1, requires that "drinking water facilities" be provided in most use group occupancies. The question is what type of drinking water facility meets the plumbing code requirement?

There are many different types of water dispensing fixtures and appliances that meet the plumbing subcode. The following are examples of approved types: drinking fountains, water coolers, and bottled water cooler dispensers. In NSPC/2009, Section 7.21.5(b), drinking water facilities for employees, a kitchen, or bar sink shall be considered a meeting this requirement.

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

Source: Thomas C. Pitcherello
Code Assistance Unit

Energy Subcode Compliance

continued from left

- Building Thermal Envelope tightness – The permit holder has two options for verifying building thermal envelope tightness: (1) testing per Section 402.4.2.1 or (2) visual inspection per Section 402.4.2.2. If the permit holder chooses testing, the results of the blower door test should be obtained and become part of the permit file. If visual inspection was selected, the building thermal envelope tightness should be verified utilizing Table 402.4.2. A checklist for this purpose will be included as part of the bulletin on this issue. Documentation of this inspection should be maintained in the permit file.
- Duct tightness – **Beginning on January 1, 2013**, duct tightness will be required to be verified through a leakage test unless the air handler and all ducts are located within conditioned space. The permit holder should verify duct tightness through testing either at post-construction or during rough-in; the timing of this test is the permit holder's choice. The benefit to a post-construction test is that the qualifications for passing are less stringent than a rough-in test. The benefit to a rough-in test is that the ductwork should be much more accessible to fix if it does not pass. The requirements for passing can be found at Section 403.2.2. Again, a copy of the test results should become part of the permit file.

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

Source: Rob Austin
Codes Assistance Unit

Are Tenant Separations Required? 

There seems to be confusion as to whether occupancies of the same Group need to be separated by a fire-separation assembly. The short answer is no, not since the Building Officials and Code Administrators (BOCA) National Building Code/1996 was superseded by the International Building Code/2000.

The following is the "separation" language from the International Building Code (IBC), 2000, 2006 and 2009 editions:

* Section 302.3.1 of the IBC/2000 -- Where a building is occupied by two or more uses not included in the same occupancy classification, the building or portion thereof shall comply with Section 302.3.1 or 302.3.2 or a combination of these sections.

See Tenant Separations- page 6

NSPC/2009: Update

On September 7, 2010, the 2009 national model codes were adopted with a six-month grace period, which is in effect until March 7, 2010. The following list presents some of the changes from the 2006 to the 2009 National Standard Plumbing Code (NSPC); this list is not an all-inclusive.

Chapter 2 - General Regulations

1. Section 2.16-- Freezing or Overheating - Item 5. – This item was expanded to describe areas of the building where piping needs protection from freezing.
2. Section 2.25-- Food Handling Establishments and Food Handling Areas Within Buildings - This section was totally rewritten and expanded with more details.
3. Section 2.26--Elevator Sump Pits – New section.

Chapter 3 - Materials

1. Section 3.1.2 General Requirements – e. and f. have been added; they contain the requirements for markings and certification of cast iron piping.
2. Section 3.1.3 – Standards Applicable to Plumbing materials-UCC Referenced Standard Associated Pool and Spa Professionals (APSP) 7, Entrapment avoidance for swimming pools, spas and hot tubs, was added.
3. Section 3.3.9-- Roof Drains – Plastic was added as an approved material.
4. Tables 3.1.3, 3.4, 3.5 and 3.6 – Referenced standards were updated.

Chapter 4 - Joints and Connections

1. Section 4.2.17 Split Couplings – Rolled grooves are permitted for galvanized joints.
2. Section 4.3.7 Copper Tube to Threaded Pipe Joints – Exception was added that would prohibit dielectric unions on water heater connection unless permitted by the manufacturer.
3. Section 4.3.9.e. Plastic DWV Pipe to Other Materials, – This subsection now states that transition cement shall not be permitted to be used within buildings.

Chapter 5 – Traps, Cleanouts and Backwater Valves

1. Section 5.3.2 Trap Seals – Exception (1) was revised. If the interceptor does not provide a trap seal a separate trap must be provided.

Chapter 6 – Liquid Waste Treatment Equipment

1. Section 6.2 Grease Interceptors – Totally revised. Expanded lists of approved types of grease interceptors.

Chapter 7 – Plumbing Fixtures, Fixture Fittings and Plumbing Appliances

1. Section 7.5.1 Urinals – Expanded list of compliant urinals.

2. Section 7.10.6 Shower Floors and Shower Pan Liners – Totally revised. Details more types of permitted shower pan liners.
3. Section 7.23 Safety Features for Spas and Hot Tubs was deleted and reference to ANSI/APSP 7 was added.
4. Section 7.24 Plumbed Emergency Eyewash and Shower Equipment – This section has been expanded and water discharge temperatures have been added.
5. Table 7.21.1 Minimum Number of Required Plumbing Fixtures – “Use Group” column was deleted.

Chapter 10 – Water Supply and Distribution

1. Section 10.2 Identification of Potable and Non-Potable Water – Color coding for piping has been added.
2. Section 10.5.9 Protection from Fire Systems – Totally revised. Types of backflow preventers added for residential and limited area sprinkler systems.
3. Section 10.12.4, 10.12.5 & 10.12.6 – These sections were revised to better indicate where required valves are to be located.
4. Section 10.14.6.d. Excessive Pressures – A new paragraph, Gauge port or pressure gauge, has been added.
5. Section 10.15.6.a. Mixed Water Temperature Control – General revisions. Exception: Water temperature, has been changed from 120 deg. to 105 deg.
6. Section 10.15.8.e. Plastic Piping--The requirement for a pressure relief valve on plastic piping has been changed.
7. Section 10.15.9.1 Where Required – General revisions. “Tank-type” has been added to “water heater.”
8. Section 10.17.5 Combined Distribution Systems – New section added that permits the use of manifold-type parallel water distribution systems to be combined with conventional main/branch piping systems.
9. Section 10.20 Multi-purpose fire sprinkler system – A new section has been added to cross reference Section P2904 of the International Residential Code/2009 as a part of the plumbing subcode.

Chapter 11 – Sanitary Drainage Systems

1. Table 11.4.1 Drainage Fixture Unit (DFU) Values - Shower stall – 1-1/2-inch trap added.
2. Table 11.5.1A Building Drains and Sewers – Drainage fixture unit value added for 3-inch pipe at 1/8-inch per foot slope.
3. Section 11.7.6 Grinder Pump Ejector – a. “Authority Having Jurisdiction” has been removed.

NSPC/2009 Update

continued from page 5

- 4. Section 11.7.11 High Water Alarms – Exception: Macerating toilet systems was added.

Chapter 12 - Vents and Venting

- 1. Section 12.10.5 Reserved – Waste stacks in dwelling units was deleted.
- 2. Section 12.10.6 Floor Drains and Floor Sinks – New section for wet venting floor drains and floor sinks.
- 3. Section 12.19 Waste Stack Venting – New section added.

Chapter 15 – Tests and Maintenance

- 1. Section 15.4.1.a – Rough Plumbing—The use of an air test on plastic piping is prohibited.

These are just a few of the changes. There are many more. Please review the NSPC/2009 for all the changes.

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

Source: Thomas C. Pitcherello
Code Assistance Unit

Residential Swimming Pools and the Plumbing Subcode: UPDATE No. 2

The Fall, 2009, Volume 21, Number 2 edition of the *Construction Code Communicator*, contained my article on “Residential Swimming Pools and the Plumbing Subcode: UPDATE.” That article stated that when a residential swimming pool has two main submerged suction (bottom drains), they must be three feet apart and must also have some type of atmospheric safety vacuum release system (SVRS) provided at the pump or pumps to protect against suction entrapment.

The National Standard Plumbing Code/2006 required a SVRS unless there were no submerged suction outlets (bottom drains) in the pool. There is a change in the NSPC/2009, which adopts the “American National Standard for Suction Entrapment in Swimming Pools, Wading Pools, Spas, Hot Tubs, and Catch Basins,” for suction entrapment. The “American National Standard for Suction Entrapment in Swimming Pools, Wading Pools, Spas, Hot Tubs, and Catch Basins” is published by the ANSI/APSP-7-2006 and is adopted as part of the NSPC/2009 by reference.

See *Residential Swimming Pools* -continued at right

Tenant Separations

continued from page 4

* Section 508.1 of the IBC/2006 -- Where a building or portion thereof contains two or more occupancies or uses, the building or portion thereof shall comply with the applicable provisions of this section.

* Section 508.1 of the IBC/2009 -- Where a building contains more than one occupancy group, the building or portion thereof shall comply with the applicable provisions of Section 508.2, 508.3 or 508.4, or a combination of these sections.

As you can see, although the section number has changed and the words have been tweaked, the intent is still the same. An example might help. For a row of office suites (Group B) in one structure (no lot lines in-between), the walls between tenants do not have to have a fire-resistance rating. However, if one of the Group B tenants were to be changed to something other than Group B, a restaurant (Group A-2), for example, the walls between the Group B and the Group A-2 would then have to comply with the provisions for a mixed-use building.

Please keep in mind that the building subcode does contain "Special Occupancies" in Chapter 4 of the IBC/2009 and Special Provisions in Section 509 of the IBC/2009, which override Section 508.1 with regard to separation. For example, enclosed mall buildings require tenant separations and multiple family dwellings also require dwelling unit separation regardless of other code requirements.

Therefore, excluding the provisions from the Special Occupancies in Chapter 4 or the Special Provisions of Section 509, the same occupancies (groups) within the same structure do not require fire resistant tenant separations.

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

Source: Rob Austin
Code Assistance Unit

Residential Swimming Pools

continued from left

A summary of the change in the requirements follows:
ANSI/APSP-7 2006 does not require a SVRS if a swimming pool has two bottom main drains spaced at least three (3) feet apart that are properly piped. If only one bottom main drain or a single submerges side wall outlet drain is installed, then a SVRS is required.

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

Source: Thomas C. Pitcherello
Code Assistance Unit

Census Item Numbers

As construction officials and technical assistants, you know you must report information on monthly permit and certificate activity to the New Jersey Department of Community Affairs. You also have an obligation to report residential building permit data to the U.S. Bureau of the Census. For most of you, these requirements occur behind the scenes. The computer software takes care of these obligations. Still, you need to know about what it is the U.S. Census Bureau is looking for. Below is a cheat sheet. It might be helpful to keep it next to the computers used to record building permits.

IF	AND	AND	THEN
Group	Permit Type	Number of Dwellings	Census Item Number Is:
R-3	New	1	101
R-4	New	1	101
R-5	New	1	101
R-3	New	2 (duplex)	103
R-4	New	2 (duplex)	103
R-2	New	0 (college dormitory)	999
R-2	New	3 or 4	104
R-2	New	5 or more units	105
I-2 (assisted living)	New	5 or more units	105*
Residential	Alteration or additions		434
All other groups	New, Addition, or Alteration, Demolition,	Does not matter, but record dwellings in mixed-use buildings	999 (off item to the Census Bureau)
* Note: If the assisted living facility has both nursing homes and apartments, count only the apartments as dwelling units.			

Census item numbers classify construction based on three-digit numbers. The federal government wants to know about new home construction. They focus on building permits for residential uses. Their main concern is the number of new houses authorized by building permits, and their estimated cost.

The most common item number is a 101. It is used for all new, residential building permits issued to build one and only one new dwelling. If you issue a building permit for a new house, the correct item number is 101.

Census item number 102 is no longer used. It referred to a building permit issued for new, residential construction, where one dwelling unit is reported on the building permit and this unit is attached to one or more dwellings. A 102 was for building permits issued to build a single-family attached house. An example would be a row house or town home. Today, if you issue a permit for a new house attached to another, call it a 101, unless, of course, it is not really independent from the other dwellings. These attached units are covered by the other item numbers, which are discussed next.

A 103 item number denotes a building permit issued to build a duplex. If you use a 103 as the item number, the U.S. Census expects to see two dwelling units gained.

A 104 is a residential building that has three or four dwellings. A 105 is a building with five or more dwellings.

The Census Bureau only wants to know about new houses or apartments. They no longer track demolitions and are no longer interested in most nonresidential buildings. The exception is assisted living facilities (group I-2). Both the Census Bureau and the Department of Community Affairs recognize that these buildings as places where people live. The number of dwellings units in the assisted living facilities should be counted and recorded on the building permit. Keep in mind that, if the assisted living facility also has a wing for nursing home or hospital beds, only the assisted living units should be counted as dwellings. The hospital and nursing home beds are NOT counted as dwellings. In most instances, the appropriate census item number for assisted living facilities will be 105.

Census Item Numbers

continued from page 7

Don't misunderstand. Although the Census Bureau no longer cares about demolitions and most nonresidential construction, we at the Department of Community Affairs still do. The only item numbers you have to remember and keep close by your computer if you use construction reporting software are: 101, 103, 104, and 105. Everything else is a 999 or an "off item," as far as the Census Bureau is concerned.

If you have questions you can call the Census Bureau directly at the toll free number: 1-800-845-8244. You also can call or e-mail me with questions I may be reached at jlago@dca.state.nj.us or at (609) 292-7898.

Source: John Lago
Division of Codes and Standards

New Requirements for Smoke Alarms and Low-voltage Smoke Detection Systems

This article is being written to make sure everyone is aware of a new positive addition to the requirement for smoke alarms in the New Jersey International Residential Code (IRC)/2009. Section R314.2, Smoke detection systems, now allows household fire alarm systems to be installed as the primary fire detection system. The IRC now provides homeowners the choice of either installing line voltage hardwired smoke alarms or a low voltage household fire alarm system. The low voltage household fire alarm system must be installed in accordance with the requirements of Sections R314.2, Smoke detection systems, and R314.4. Power source. Below is the new code text that allows the installation of the household fire alarm systems in accordance with the IRC/2009 and National Fire Protection Association (NFPA) 72/2007.

"R314.2 Smoke detection systems. Household fire alarm systems installed in accordance with NFPA 72 that include smoke alarms, or a combination of smoke detector and audible notification device installed as required by this section for smoke alarms, shall be permitted. The household fire alarm system shall provide the same level of smoke detection and alarm as required by this section for smoke alarms. Where a household fire warning system is installed using a combination of smoke detector and audible notification device(s), it shall become a permanent fixture of the occupancy and owned by the homeowner. The system shall be monitored by an approved supervising station and be maintained in accordance with NFPA 72.

Exception: Where smoke alarms are provided meeting the requirements of Section R314.4."

See Smoke Alarms -continued at right

Smoke Alarms

continued from left

"R314.4 Power source. Smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. Smoke alarms shall be interconnected."

The code change is very similar to Bulletin 08-1 in that it requires monitoring and servicing of the fire alarm system after installation. The new code section goes one step further and requires that the low voltage household fire alarm system be a permanent fixture owned by the homeowner.

So, as of September 7, 2010 when New Jersey adopted the IRC/2009, homeowners are allowed to install low voltage household fire alarm systems as long as they own the system, have it monitored by an approved supervising station, and have it maintained in accordance with NFPA 72. Therefore, a variation is no longer required for the installation of a low voltage household fire alarm system installed in accordance with IRC and NFPA-72.

The Department will be withdrawing Bulletin 08-1 when the 6 month grace period expires for the IRC/2009.

Source: Michael E. Whalen
Code Assistance Unit

Introducing the New and Improved Codes and Standards Internet Website

As many of you may have noticed by now, the Division of Codes and Standards has a new website. Its address is: www.nj.gov/dca/divisions/codes/.

We have carefully reorganized the information appearing at the Division's Internet website in a manner that we believe is now easier to navigate, and will more readily enable our website visitors to find whatever it is they need. If you look closely, you will also see that a standard of presentation has been employed as well.

Every page is structured to present the same blue navigation (or menu) list on the left; its purpose is to guide visitors through the website. The white space in the center of each page presents the bulk of the information on that page's subject. Depending on the page, there may also be a right-hand column defined, which may contain one, some, or all of these three components: 1) a teal-colored right-hand navigation that provides a "fast path" to the sub-pages of the

See New Website- page 9

New Website*continued from page 8*

subject as categorized, 2) a blue "related links" box, and 3) a green "more information" box. Note the "breadcrumbs" that appear at the top of each page will always track your location and "the way back."

Major categories of information appearing on the left-hand menu include: "About the Director," "Bureaus, Offices & Programs," "Codes & Regulations," "Code Official Information," "Advisory Boards," "Alerts & Issues," "Publications," the "Construction Reporter," "Forms," "Additional Resources," "Topics A-Z," and "Contact Us;" simply mouse-click on your topic of interest.

Some of the categories are self-explanatory; for example, the category, "About the Director" provides a brief description of the division director.

The category, "Bureaus, Offices & Programs" provides the name, mailing address, telephone and fax numbers, and sometimes an e-mail address, along with a brief description of each, for the eight bureaus and offices that make up the Division of Codes and Standards. This page also provides the hyperlinks to bureau and offices subpages from which you may access detailed information on the Division's various programs.

The category "Codes & Regulations" provides information on currently adopted codes, previously adopted codes, the grace period, current administrative rules and regulations, and rule proposals and adoptions.

The category, "Code Official Information" provides information for and about the licensed code official community.

The category, "Advisory Boards" provides information about the Division's various advisory boards, their meeting schedules, agendas and meeting minutes, as available.

The category "Alerts & Issues" presents a listing (with hyperlinks) of current as well as past advisory/instructional letters, usually (but not always) issued by the division director, typically to the codes community.

The category, "Publications" provides the listing (with hyperlinks) of all of Codes and Standards' publications; the "Construction Reporter" publication has its own page.

The category, "Forms" provides a listing of all of the Division's various forms, organized by program area and including hyperlinks, where the form may be downloaded from, or completed over, the Internet.

The category, "Additional Resources" provides a listing (with hyperlinks) of additional resources organized by program; please note, this page is still under construction.

See New Website -continued at right

New Website*continued from left*

When you are looking for something at the Codes and Standards website, but are unsure of where to find it, click on the category, "Topics A-Z"

The category, "Contact Us" is self-explanatory.

If you have bookmarked our old website or *any* of the subpages found there, *please* remember to update those bookmarks to the new site. If after considering the website structure improvements explained above, you *still* have trouble finding something, by all means please telephone us at (609) 292-7899; ask for the Codes and Standards website editor.

Source: Berit Osworth
Division of Codes and Standards

Information about Available Training for Lead Safe Work Practices

Since September 15, 2000 the United States Department of Housing and Urban Development (HUD) has required all individuals performing work on "target housing" to be trained in lead-safe work practices (24 CFR 35, Lead Safe Housing Rule). In the case of lead safe work practices, "target housing" means any housing containing one bedroom or more constructed prior to 1978, except housing for the elderly or persons with disabilities (unless any child who is less than six years of age resides or is expected to reside in such housing). This was followed by the State of New Jersey adopting lead-safe building maintenance requirements for multiple dwellings (N.J.A.C. 5:10), emergency shelters (N.J.A.C. 5:15) and rooming and boarding homes (N.J.A.C. 5:27) in 2005.....and finally in June of this year, the Environmental Protection Agency (EPA) fully implemented its Renovation, Repair and Painting (RRP) Rules (40 CFR 35).

Unfortunately, the requirements under each of these regulations can vary making it confusing and difficult for contractors, multiple dwelling owners and maintenance workers to ensure that their activities remain in compliance. The Division of Housing and Community Resources in the New Jersey Department of Community Affairs is offering a certificate program which will satisfy the training requirements under **ALL THREE** regulations.

Information on the **reduced cost** training courses, including how to register can be obtained at: <http://shop.njworkforce.org/>

Code officials are not required to take this training; the Division is providing this as information. If you have any questions, please feel free to contact us at 1-877-DCA-LEAD.

Source: Veronica Delessandro
Division of Housing and Community Resources

CONSTRUCTION REPORTER AUGUST 2010 HIGHLIGHTS

- The estimated cost of construction authorized by building permits in August was \$887.7 million. This is 13.3 percent more than last month.
- Residential work amounted to \$426.6 million (48.1 percent). Office, retail, and other nonresidential activity totaled \$461.1 million (51.9 percent). 560 of New Jersey's 566 municipalities reported.
- For the first time since December 2009, the number of new houses broke 1,000 units. The August tally was 1,252; this was 26.2 percent more than last month.
- Franklin Township, Somerset County had the most work, \$32 million for the month. One of the bigger developments was a \$21.4 million conversion of an existing warehouse to store financial data. Another big permit reported was for a new 70-unit, income- and age-restricted apartment building. Franklin Township ranked third among municipalities with 103 authorized dwellings in August. Only Monroe Township (Gloucester County) and Springfield Township (Union County) had more, 139 and 104, respectively.
- Glassboro in Gloucester County had \$24.4 million of work in August, ranking second among municipalities. Nearly all of this was from a single project for Rowan University. It is a mixed-use building with an estimated construction cost of \$23 million. The development will have 280 dorm rooms, as well as classroom and office space, and retail and restaurant uses.
- Paterson in Passaic County had \$24 million of construction. A new, structured parking deck for St. Joseph Hospital accounted for \$20.5 million.

Year-to-Date

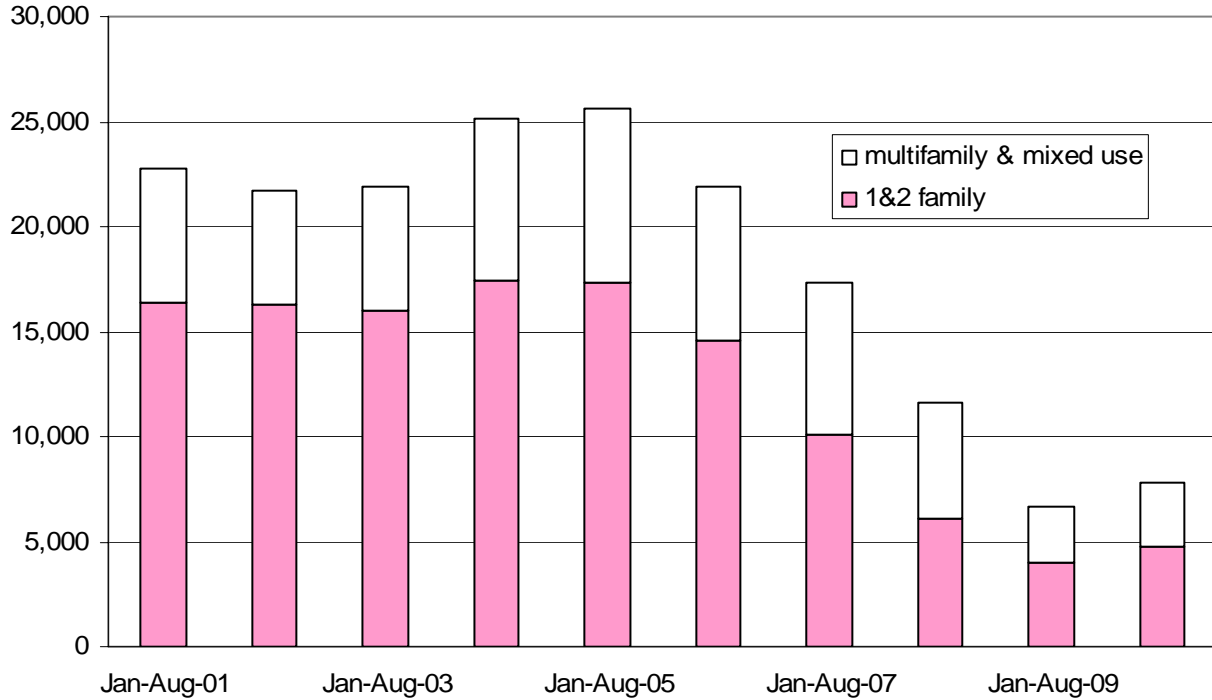
- All major indicators are up.
- The estimated cost of work reported on all building permits between January and August 2010 was \$6.4 billion. This is nearly one percentage point more than the same eight-month period last year.
- Nearly 1,200 more homes were built between January and August 2010 compared to the same period in 2009. This is a gain of 17.3 percent.
- Office construction is up by 49.6 percent, nearly 1.2 million more square feet.
- Retail work is only up by 1.3 percent compared to 2009.

Major Construction Indicators, New Jersey: Year-to-Date Trends				
Period	Estimated Cost of Construction	Authorized Housing Units	Authorized Office Space (square feet)	Authorized Retail Space (square feet)
Jan – August 2010	\$6,477,115,400	7,823	3,603,879	1,593,867
Jan – August 2009	\$6,433,888,059	6,667	2,409,405	1,573,697
Jan – August 2008	\$9,881,873,384	11,584	5,145,483	4,826,935
Jan – August 2007	\$10,024,136,462	17,371	6,137,178	2,942,040
Jan – August 2006	\$10,450,657,277	21,884	7,315,171	4,375,293
Jan – August 2005	\$9,875,901,592	25,615	7,349,034	4,920,026
Jan – August 2004	\$8,864,794,829	25,153	7,191,451	3,603,455
Difference Between 2009 and 2010 year to date				
2009 - 2010	\$43,227,341	1,156	1,194,474	20,170
Percent Change	0.7%	17.3%	49.6%	1.3%
<i>Difference Between 2008 and 2009 year to date</i>				
2008 - 2009	-\$3,447,985,325	-4,917	-2,736,078	-3,253,238
Percent Change	-53.6%	-73.8%	-113.6%	-206.7%

Source: N.J. Department of Community Affairs, 10/7/10

See Construction Reporter- page 11

Authorized Housing Units, Jan-Aug. 2001-10



Source: John Lago
Division of Codes and Standards

Ordinary Maintenance – Plumbing Fixture Replacements

The Department has been receiving questions as to who is permitted to replace plumbing fixtures in a single family dwelling under ordinary maintenance.

At N.J.A.C. 5:23-2.7(c)2x, ordinary maintenance, in the Uniform Construction Code (UCC), "Replacement of a water closet, and/or lavatory, and/or bathtub or shower unit and/or kitchen sink in a single family dwelling with an approved similar fixture provided that no change in the piping arrangement is made....." is listed as ordinary maintenance.

In addition, at N.J.A.C. 5:23-2.15(b)2i, Construction permits – application, the UCC states that "Plumbing and electrical work shall not be undertaken except by persons licensed to perform such work pursuant to law, except in case of a single family homeowner on his own dwelling."

See Ordinary Maintenance -continued at right

Ordinary Maintenance

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So, who can replace plumbing fixtures in a single family dwelling under ordinary maintenance? A homeowner in his own home or a New Jersey Licensed Master Plumber may replace plumbing fixtures in a detached single family dwelling. A person with only a Home Improvement Contractor registration is not permitted to replace plumbing fixtures under the New Jersey Master Plumbers Licensing Law.

I hope this will clear up any confusion on this issue. Should you have any questions, you may contact me at (609) 984-7609.

Source: Thomas C. Pitcherello
Code Assistance Unit

What's New in the International Building Code/2009

The following is a summary of the changes between the New Jersey edition of the International Building Code (IBC)/2006 and the New Jersey edition of the IBC/2009. This is not an all-inclusive list.

Chapter 2 - Definitions

- New term and definition for Ambulatory Health Care Facility has been added. These types of facilities are regulated as Group B occupancies.
- Definitions have been added for **PRIMARY STRUCTURAL FRAME** and **SECONDARY MEMBERS**. These definitions apply to the terms used in Table 601 and clarify which members are required to be protected.

Chapter 3, Use and Occupancy Classification

- Two exceptions have been added at Section 303.1, Assembly Group A. These exceptions make it clear that assembly areas in Group E occupancies are not separate occupancies and educational rooms in religious occupancies with an occupant load less than 100 are not separate occupancies.
- In Groups S-2 and F-2, allowable, alcohol concentration has been increased from 12 % to 16%. This will allow all wines to be manufactured and stored in F-2 and S-2 facilities.

Chapter 4, Special Detailed Requirements Based on Use and Occupancy

- At 402.6, Types of Construction (Covered Mall Buildings), the concept of "Reduced Open Space" may now be applied to Covered Mall Buildings. This concept has been allowed for all other "Unlimited Area Buildings" since the 2000 IBC and the text of 402.6.1 is consistent with 507.5.
- As a result of the Terror Resistant Building Ad Hoc Committee (which was chaired first by the Division of Codes and Standards' former Director William Connolly and then by Gary Lewis), there are several new requirements in Section 403, High Rise Buildings. They are: **403.2.3 Structural integrity of exit enclosures and elevator hoistway enclosures**, **403.2.4 Sprayed fire-resistant materials (SFRM)**, **403.3.1 Number of sprinkler risers and system design**, **403.3.2 Water supply to required fire pumps**, **403.4.4 Emergency responder radio coverage**, **403.5.1 Remoteness of exit stairway enclosures**, **403.5.2 Additional exit stairway**, **403.5.5 Luminous egress path markings**, **403.6.1 Fire service access elevator**. These new sections provide an enhanced level of safety in high rise and iconic buildings.

See New in IBC/2009 -continued at right

New in IBC/2009

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- New Section 419 has been added to address Live/Work Units which are defined as dwelling units or sleeping units in which a significant portion of the space includes a nonresidential use that is operated by the tenant.
- New Section 422, entitled "Ambulatory Health Care Facilities" has been added to address the special requirements for facilities where individuals are rendered incapable of self-preservation for periods of less than 24 hours.

Chapter 5 – General Building Heights and Areas

- Table 503 is amended to add the following note to Group I-4: "e. *Child care facilities of Types IIB, III, IV or V construction shall be limited to 20 feet and 1 story.*" The amendment to this section reverts back to the 1996 BOCA height limitations for Child care facilities.
- Section 508, entitled "Mixed Use and Occupancy" has been rewritten. The only substantive change is the deletion of "Storage rooms in excess of 100 sf" from Table 508.2.5. The effect of this is that a storage room can be treated as either an accessory use, non-separated mixed use or a separated use as is the case with any other mixed use scenario.
- Added new row and column for Group I-2 occupancies in Table 508.4 entitled "Required Fire Separation of Occupancies," thus increasing the required fire rating of the separations in this occupancy Group.

Chapter 7 – Fire and Smoke Protection Features

- Added UL 263 as a test standard to determine fire resistance rating (in addition to ASTM E119). This change is applied throughout the text of this chapter.
- Added UL 723 as a test standard to determine flame spread index (In addition to ASTM E84). This change is applied throughout the text of the code.
- Old Section 714 has been renumbered as 704 and remains entitled "Fire-resistance rating of structural members."
- Section 704.13 has been added to include Sprayed fire-resistant material (SFRM) requirements into the body of the code. These requirements were previously contained in a standard.
- Section 707.3.9 has been amended to clarify the required fire resistance rating of fire barriers and horizontal assemblies separating a single occupancy into different fire areas.

See New in IBC/2009 -page 13

New in IBC/2009

continued from page 12

New in IBC/2009

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Chapter 9 – Fire Protection Systems

- Sprinklers are required in Group B ambulatory health care facilities when four or more care recipients are incapable of self-preservation or when one or more care recipients is incapable of self-preservation and is located at other than the level of exit discharge.
- The threshold for sprinkler protection in Group E occupancies has been lowered from 20,000 square feet to 12,000 square feet.
- In addition to the current threshold for sprinkler protection in Group M occupancies, a Group M occupancy used for the display and sale of upholstered furniture is required to be sprinklered.
- Group S-2 enclosed parking garages are required to be sprinklered when the fire area of the enclosed parking garage exceeds 12,000 square feet (1115 m²);

Chapter 10 – Means of Egress

- Egress width per occupant is now calculated by the total occupant load being served by the means of egress multiplied by 0.3 inches per occupant for stairways and by 0.2 inches per occupant for other egress components. These multipliers are the same as those in the 2006 code for an unsprinklered building.

- A New Section 1009.4.1, entitled “Dimension reference surfaces” has been added that states that all stair dimensions are exclusive of carpets, rugs or runners.
- Old Section 1019 entitled “Number of Exits and Continuity” is now Section 1021 and has been rewritten. The code previously dealt with BUILDINGS with one exit. The new section 1021 deals with STORIES with one exit. This seems subtle but makes a huge difference!
- New Section 1024.1 requires luminous egress path markings that delineate the exit path be provided in buildings of Groups A, B, E, I, M and R-1 having occupied floors located more than 75 feet above the lowest level of fire department vehicle access.
- Section 1027.1, regarding exit discharge has been amended to clarify that exits that discharge through lobbies and vestibules may not exceed 50 percent of the number and capacity of the required exits.

Source: John N. Terry
Manager, Construction Code Enforcement

NEC and the Rehab Subcode – Which Edition?



The National Electrical Code/2008 (NEC/2008) was adopted April 6, 2009. The six-month grace period for using the NEC/2005 expired October 5, 2009. This means that since October 6, 2009, a complete permit application must comply with the NEC/2008. This applies to new construction only.

Under the Uniform Construction Code (UCC) existing structures must comply with N.J.A.C. 5:23-6, the Rehabilitation Subcode. We are taking this opportunity to remind all code users that any work done in an existing building or dwelling continues to be required to comply with the NEC/2005 because NEC/2005 is referenced in the Rehabilitation Subcode, materials and methods, at N.J.A.C. 5:23- 6.8(d). If you are looking for specific proof, please see the supplement date at the bottom of page 23-140.9; it states that this page is current as of 8-6-07, when the 2005 NEC was in effect.

To Vent or Not to Vent?



Per the International Residential Code (IRC)/2009, enclosed attics and enclosed rafter spaces that are formed where ceilings are applied directly to the underside of roof rafters are required to have cross ventilation, including opening requirements of not less than 1/150 of the area of the space ventilated, except that reduction of the total area to 1/300 is permitted when a Class I or II vapor barrier (see Section R601.3) is installed on the warm-in-winter side of the ceiling (Note: This is one of two exceptions listed for reducing the amount of openings.) For attics with the insulation in the “floor” joists, the insulation clearance from Section R806.3 is not difficult to obtain. In an attic that is part of the thermal envelope (or a cathedral ceiling) it may be difficult to maintain the minimum 1-inch space not only between the insulation and the roof sheathing, but also at the location of the vent. Typically, the installation of additional baffles is required. However, Section R806.4, Unvented attic assemblies, contains provisions that help with this situation. Section R806.4 allows for unvented attic assemblies (spaces between the ceiling joists of the top story and the roof rafters) as long as all the following conditions are met:

Vent or No Vent*continued from page 13*

1. The unvented attic space is completely contained within the building thermal envelope.
2. No interior vapor retarders are installed on the ceiling side (attic floor) of the unvented attic assembly.
3. Where wood shingles or shakes are used, a minimum 1/4 inch vented air space separates the shingles or shakes and the roofing underlayment above the structural sheathing.
4. In climate zone 5, any air-impermeable insulation shall be a vapor retarder, or shall have a vapor retarder coating or covering in direct contact with the underside of the insulation.
5. Either Items 5.1, 5.2 or 5.3 shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing.
 - 5.1. Air-impermeable insulation only. Insulation shall be applied in direct contact with the underside of the structural roof sheathing.
 - 5.2. Air-permeable insulation only. In addition to the air-permeable insulation installed directly below the structural sheathing, rigid board or sheet insulation shall be installed directly above the structural roof sheathing as specified in Table R806.4 for condensation control.
 - 5.3. Air-impermeable and air-permeable insulation. The air-impermeable insulation shall be applied in direct contact with the underside of the structural roof sheathing as specified in Table R806.4 for condensation control. The air-permeable insulation shall be installed directly under the air-permeable insulation.

The key to applying the insulation directly against the roof sheathing is that the insulation used is air-impermeable as defined in Chapter 2 of the IRC/2009, which states that air-impermeable insulation is "an insulation having an air permeance equal to or less than 0.02 L/s-m² at 75 Pa pressure differential tested according to ASTM E 2178 or E 283." Closed-cell and open-cell spray foam insulation typically meet this definition.

Therefore, in the case of Section R806.4, the 1-inch air space from R806.3 is no longer needed.

Note: For those still dealing with projects designed under the IRC/2006, a similar provision at the same section is provided; it is entitled "conditioned attic assemblies."

If you have any questions regarding this matter, please contact Code Assistance at (609) 984-7609

Source: Rob Austin
Code Assistance

Structural Integrity for High-rise Buildings - New Section in the IBC/2009

With the adoption of the 2009 International Building Code (IBC/2009), there is a new section, Section 1641, entitled "Structural Integrity," which addresses structural integrity for high-rise buildings. Buildings with an occupied floor located more than 75 feet above the lowest level of fire department vehicle access and assigned to Occupancy Category III or IV must comply with the requirements of this new section. Framed structures must comply with the requirements of Section 1614.3 and bearing wall structures must comply with the requirements of Section 1614.4.

The requirements of this section are intended to prevent progressive collapse by tying the structure together vertically and horizontally, thus providing for the transfer and/or redistribution of loads should there be a loss of support.

Occupancy Categories are defined in Table 1604.5 of IBC/2009. Occupancy Category III and IV are defined as follows, respectively:

Occupancy Category III includes buildings and other structures that represent a substantial hazard to human life in the event of failure. Such facilities include, but are not limited to, the following.

1. Building and other structures whose primary occupancy is public assembly with an occupant load greater than 300.
2. Building and other structures containing elementary school, secondary school or day care facilities with an occupant load greater than 250.
3. Buildings and other structures containing adult education facilities, such as colleges and universities, with an occupant load greater than 500.
4. Group I-2 occupancies with an occupant load of 50 or more resident patients but not having surgery or emergency treatment facilities.
5. Group I-3 occupancies.
6. Any other occupancy with an occupant load greater than 5,000.
7. Power-generating stations, water treatment facilities for potable water, waste water treatment facilities and other public utility facilities not included in Occupancy Category IV.
8. Buildings and other structures not included in Occupancy Category IV containing sufficient quantities of toxic or explosive substances to be dangerous to the public if released.

See Structural Integrity -page 15

NEC and Rehab

continued from page 13

So what does this mean? Two big ticket items on which the Department receives many phone calls are: Arc-Fault Circuit-Interrupter (AFCI) Protection (NEC/2008, Section 210.12) and Tamper-Resistant Receptacles (TRR), (NEC/2008, Section 406.11). Obviously, for new construction, the sections in the NEC/2008 are to be followed. But, for work in existing buildings, these sections are not required because they were not part of the NEC/2005 as it was adopted as the electrical subcode.

An example might be helpful: when doing work within the original footprint of an existing home, no AFCI's or TRR's are required. However, if the work project is an addition (i.e. new construction and not finishing a basement or attic), TRR's are required **only** for the addition and AFCI's are required only **if** a new branch circuit is provided to the addition. It is important to note that existing circuits in the existing dwelling may be tapped into to feed the addition and, provided the changes comply with the materials and methods provisions of the rehabilitation subcode, no AFCI protection is required for those circuits in the addition.

Finally, per N.J.A.C. 5:23-6.2(b)2i, if a structure is demolished except for a *de minimis* amount, for example, if only the foundation remains, the replacement structure is designated as a new structure and the NEC/2008 is to be applied.

In summary, until the NEC/2008 is adopted as the materials and methods for the rehabilitation subcode (N.J.A.C. 5:23-6), the NEC/2005 remains in effect for work in existing structures.

If you have any questions on this matter, please contact us at (609) 984-7609.

Source: Rob Austin and Suzanne Borek
Code Assistance Unit

Ordinary Maintenance Does Not Mean No Rules

N.J.A.C. 5:23-2.14(a) requires that a Uniform Construction Code (UCC) permit be obtained to construct, enlarge, repair, renovate, alter, reconstruct or demolish a structure, to change the use of a building or structure, or portion thereof, to install or alter any equipment for which provision is made or the installation of which is regulated by the UCC, or to undertake a project involving lead abatement in accordance with N.J.A.C. 5:17.

Structural Integrity

continued from page 14

Occupancy Category IV includes buildings and structures that are designated by the local emergency management authority as essential facilities. Essential facilities include, but are not limited to, the following:

1. Group I-2 occupancies having surgery or emergency treatment facilities.
2. Fire, rescue, ambulance and police stations and emergency vehicle garages.
3. Designated earthquake, hurricane or other emergency shelters.
4. Designated emergency preparedness, communications and operations centers and other facilities required for emergency response.
5. Power-generating stations and other public utility facilities required as emergency backup facilities for Occupancy Category IV structures.
6. Structures containing highly toxic materials as defined by Section 307 where the quantity of the material exceeds the maximum allowable quantities of Table 307.1(2).
7. Aviation control towers, air traffic control centers and emergency aircraft hangars.
8. Buildings and other structures having critical national defense functions.
9. Water storage facilities and pump structures required to maintain water pressure for fire suppression.

If the building is a high-rise and is either an Occupancy Category III or IV, it must comply with Section 1614 of IBC/2009.

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

Source: Marcel Iglesias
Code Assistance Unit

List of Registered Builders

Back in the Spring 2008 edition of the *Construction Code Communicator*, we said we would no longer be mailing to local construction officials the list of revoked or suspended new home builders, but, in fact, we continued to periodically mail the printed list of revoked or suspended new home builders.

We are advising you, once again, that we will no longer mail that list to local construction officials; this time we really mean it.

As a reminder, under New Jersey law, all new home builders must be registered with the Department of Community Affairs; and, in order to obtain a permit for

Registered Builders

continued from page 15

the construction of a one- or two-family dwelling, condominium or cooperative. a builder's registration cannot be expired, revoked or suspended.

When presented with a new home builder registration number on a Construction Permit Application, check its validity by visiting the Division of Codes and Standards' website page specifically at:

www.nj.gov/dca/divisions/codes/publications/registered_builders.html

where you will find the current listing of ALL NJ builders. The list is sorted alphabetically by builder

See Registered Builders continued at right

Ordinary Maintenance

continued from page 15

A permit is not required for projects that consist of ordinary maintenance. N.J.A.C. 5:23-2.7(c) provides a list of items that are ordinary maintenance. Please keep in mind, this is not an all-inclusive list; if you are curious as to whether something is ordinary maintenance, N.J.A.C. 5:23-2.7(b) lists those items that are not considered ordinary maintenance.

It is important to recognize that, although there is no permit required for work categorized as ordinary maintenance, the project is still required to meet the UCC. This can present problems for code enforcement officials who are not authorized to go into properties in search of non-compliant ordinary maintenance projects. However, if a code official is inspecting work that did require a permit and observes non-compliant work that did not require a permit, the code official may order that the non-compliant work be made to comply. In that case, if the work that required a permit is compliant, that work should be approved; a violation notice should be issued for the non-compliant work.

Finally, even though a UCC permit is not required for work categorized as ordinary maintenance, the professional licensing laws apply. Therefore, unless a homeowner is doing the work himself, appropriately licensed professionals are required. For instance, if a homeowner is having the toilet replaced and is not doing the work himself, a licensed master plumber is required to do the work. As another example, if a homeowner decides to have his home repainted and does not do the work herself, a licensed home improvement contractor is required. Code officials do not enforce the licensing laws, but because the code enforcing agency is often the primary source of information for homeowners for their projects, it is helpful to know that the licensing laws do apply.

Source: Rob Austin
Code Assistance Unit

Registered Builders

continued from left

name; builder names beginning with numbers appear in numerical order at the beginning of the list.

The list's format is .pdf. As such, the 'Find' feature may be used to search builder name, registration number or even builder status. Please note, if a builder is not on the list, it means that builder is not currently registered with the State of New Jersey. Builders that have let their registrations lapse are no longer considered registered builders.

If, after reviewing the list, you still have questions about the status of a builder, please telephone the Bureau of Homeowner Protection's New Home Warranty Builder Registration unit at (609) 984-7910.

Source: Berit Osworth
Division of Codes and Standards

The National Standard Plumbing Code/2009 -Member Price Available



The National Standard Plumbing Code (NSPC)/2009 was adopted as the plumbing subcode on September 7, 2010. As a result of the Department's continuing efforts to negotiate with the organizations that publish the adopted national model codes to obtain discounted prices for the code books, the Plumbing, Heating, and Cooling Contractors - National Association (PHCC-NA), publishers of the NSPC, has again agreed to provide municipalities with a "member" price for both the non-illustrated and the illustrated versions of the NSPC/2009.

The NSPC/2009 must be purchased from NJPHCC. To receive the member price, the municipality must submit its request on official municipal letterhead and must include the name(s) of the inspector(s), along with a purchase order or check made payable to: NJPHCC. Each municipality is entitled to a limited number of codebooks at the member price.

Please call NJPHCC at (800) 652-7422 or fax at (609) 987-9797 for the member price, number of codes allowed, and shipping and handling charges.

Your order should be mailed to:

NJPHCC
Attention: Nicole
P.O. Box 2067
Princeton, NJ 08543

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

Source: Thomas C. Pitcherello
Code Assistance Unit

What's New in the International Residential Code/2009?

The following is a summary of changes between the New Jersey edition of the International Residential Code (IRC)/2006 and the New Jersey edition of the IRC/2009. This is not an all-inclusive list.

- Section R302 has been revised to include all of the fire-resistance rated construction requirements that have been spread throughout the code. This section now includes 302.1, Exterior walls; 302.2, Townhouses; 302.3, Two-family dwellings; 302.4, Dwelling unit rated penetrations; 302.5, Dwelling/garage opening protection; 302.6, Dwelling/garage fire separation; 302.7, Under-stair protection; 302.8, Foam plastics; 302.9, Flame spread index and smoke development index for wall and ceiling finishes; 302.10, Flame spread index and smoke development index for insulation; 302.11, Fire blocking; 302.12, Draftstopping; and 302.13, Combustible insulation clearance.
- Section R3084, entitled "Hazardous Locations," has been rewritten with regard to GLAZING. Although it might appear to be different, careful study shows that there are NO changes in the requirements; however, the section is MUCH clearer than the previous editions of the code.

See New in IRC/2009 continued at right

New in IRC/2009

continued from left


- In Sections R311, entitled "Means of Egress," and R312, entitled "Guards," all stairway, handrail and guardrail dimensions remain the same as in the past.
- In Section R313, entitled "Automatic Fire Sprinkler System," the scoping requirement for the installation of fire sprinklers has been deleted, however, the installation requirements remain in the code. Therefore, should a permit applicant choose to install an automatic fire sprinkler system, the system must be installed in accordance with NFPA 13D or Section P2904 of the IRC. Both NFPA 13D and P2904 provide requirements for a sprinkler system that is part of the water distribution system. These standards DO NOT require and independent sprinkler system.
- Section R314, entitled "Smoke Alarms," has been rewritten to clarify the requirements applicable to low-voltage smoke detection systems.
- In Section R322.2.1, entitled "Elevation requirements", a new criterion has been added which states: "Buildings and structures in flood hazard areas designated as Coastal A Zones shall have the lowest floors elevated to or above the base flood elevation plus 1 foot (305 mm), or to the design flood elevation, whichever is higher."
- New Section R402.3.1, entitled "Precast concrete foundation materials," has been added to address this new technology. These types of foundation wall have been the subject of several Evaluation Reports. The requirements are now codified.
- In Section R408.2, entitled "Openings for under-floor ventilation" THE EXCEPTION IS BACK! "Exception: The total area of ventilation openings shall be permitted to be reduced to 1/1,500 of the under-floor area where the ground surface is covered with an *approved* Class I vapor retarder material and the required openings are placed to provide cross ventilation of the space. The installation of operable louvers shall not be prohibited."
- Section P2904, entitled "Multi-purpose fire sprinkler systems" is retained through a cross reference in the plumbing subcode. This provides a design alternative to the installation of sprinklers through the use of the plumbing system of the home.

Source: John N. Terry
 Manager, Construction Code Enforcement

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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Volume 22, Number 4

Winter 2010

A Change to the Communicator, Winter 2010

Beginning with this issue, Winter 2010, the final issue of the *Construction Code Communicator* each year will consist of a collection and re-printing of all the 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.

Once the *Construction Code Communicator* has been posted, the individual Alerts, Hot Topics, Letters from the Director, guidance documents, and other information items will be removed from the Division's website. However, it will still be possible to see a copy of any of these documents as it was originally posted on the Division's website by accessing the Division's Document Library or through the "Topics A-Z" tab on the Division's website: www.nj.gov/dca/divisions/codes/.








So, in this issue, for the first time, there are no new articles. The Index for all four issues of the *Construction Code Communicator* 2010 is 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 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. We hope that you will appreciate this change to the *Construction Code Communicator*.

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 etempleton@dca.state.nj.us.

Source: Emily W. Templeton
Division of Codes and Standards

In This Issue

2006 International Fire Code Adopted w/Amendments 	5	Outdoor Wood Boilers	11
2008 NEC and Rehab Subcode 	5	Permit Extension Act of 2008 –Definition of Environmentally Sensitive Area	13
Concrete Testing Alert	5	Permit Extension Act of 2008 –Examples of Application to Permits Issued under the UCC	14
Fire Alarm Transmission Channels and Managed Facilities (MFVNs) 	6	Permit Extension Act of 2008 –Guidance Information	13
Index to Construction Code Communicator 2010 (Vol. 22)	2	Permit Extension Act of 2008 –List of Permits Included and Excluded	14
Installation of Renewable Energy Systems 02-04-09	7	Satellite Dish Antenna Installations 06-23-10 	8
Installation of Renewable Energy Systems 12-02-09	8	Telecommunications Wiring and Fire-rated Assemblies  	9
Installation of Solar Photovoltaic Power 	8	US EPA Rules: RRP, Lead-based Paint Renovation, Repair and Painting	10
New! Electronic Communication w/Plan Review Applicants	4		

Index to the *Construction Code Communicator* 2010 (Volume 22)

Article	Edition	Issue No.	Page	Discipline
2006 International Fire Code Adopted w/Amendments	Winter	4	5	Fire Protection
2008 NEC and Rehab Subcode	Winter	4	5	Electrical
2010 Building Safety Conference	Summer	2	1	
Are Tenant Separations Required?	Fall	3	4	Building
Bills and Laws	Summer	2	8	
Census Item Numbers	Fall	3	7	
Classifying a Rehabilitation Project	Summer	2	9	
Concrete Testing Alert	Winter	4	5	
Construction Reporter: August 2010 Highlights	Fall	3	10	
Construction Reporter: Dec 2009 Highlights & Y.T-D Summary	Spring	1	5	
Correction -The NJ State Permit Surcharge (Training) Fee: Charge or No Charge?	Summer	2	7	
Drinking Water Facilities	Fall	3	4	Plumbing
Duct Insulation R-values: IECC/2006 vs. IECC/2009	Spring	1	4	Building
Energy Subcode Compliance with IECC/2009 and ASHRAE 90.1-2007	Fall	3	2	Building
Equipotential Bonding and the NEC/2008	Summer	2	5	Electrical
Fire Alarm Transmission Channels and Managed Facilities (MFVNs)	Winter	4	6	Fire Protection
GFCI Protection in New Jersey	Spring	1	8	Electrical
Happy Retirement Cynthia A. Wilk	Fall	3	1	
Index to Construction Code communicator 2009 (Volume 21)	Spring	1	3	
Index to Construction Code Communicator 2010 (Volume 22)	Winter	4	2	
Information about Available Training for Lead Safe Work Practices	Fall	3	9	
Installation of Renewable Energy Systems 02-04-09	Winter	4	7	
Installation of Renewable Energy Systems 12-02-09	Winter	4	8	
Installation of Solar Photovoltaic Power	Winter	4	8	Electrical
Introducing the New and Improved Codes and Standards Internet Website	Fall	3	8	
List of Registered Builders	Fall	3	15	
NEC and the Rehab Subcode	Fall	3	13	Electrical
New! Electronic Communication w/Plan Review Applicants	Winter	4	4	
New NFPA Referenced Standards for the 2009 I-Codes	Spring	1	8	Fire Protection
New Recreational Park Trailer Standard is Released	Spring	1	4	
New Referenced Standard for Residential construction in High Wind Regions	Spring	1	2	Building
New Requirements for Smoke Alarms	Fall	3	8	Electrical/Fire Protection
NSPC 2009 –Member Price Available	Fall	3	16	Plumbing
NSPC/2009 Update	Fall	3	5	Plumbing
Ordinary Maintenance Does Not Mean No Rules	Fall	3	15	

Index to the *Construction Code Communicator* 2010 (Vol. 22) -continued

Article	Edition	Issue No.	Page	Discipline
Ordinary Maintenance –Plumbing Fixture Replacements	Fall	3	11	Plumbing
Outdoor Wood Boilers	Winter	4	11	
Periodic Inspections Under the Uniform Construction Code	Summer	2	1	Electrical/Plumbing
Permit Extension Act of 2008 –Definition of Environmentally Sensitive Area	Winter	4	13	
Permit Extension Act of 2008 –Extended	Spring	1	1	
Permit Extension Act of 2008 –Examples of Application to Permits Issued under the UCC	Winter	4	14	
Permit Extension Act of 2008 –Guidance Information	Winter	4	13	
Permit Extension Act of 2008 –List of Permits Included and Excluded	Winter	4	14	
Permits and Prior Approvals	Spring	1	10	
Rehabilitation Subcode: Application of Basic and Supplemental Requirements	Summer	2	7	
Replacement and Newly Installed Electrical Panels	Spring	1	12	Electrical
Required Annual Backflow Preventer Testing	Summer	2	8	Plumbing
Residential Swimming Pools: UPDATE 2	Fall	3	6	Plumbing
Roof Access Hatch	Summer	2	3	Building
Satellite Dish Antenna Installations 06-23-10	Winter	4	8	Electrical
Solar Panels and Guards	Spring	1	11	Electrical
Solar Photovoltaic Installations: The Board of Examiners of Electrical Contractors Explains	Spring	1	10	Electrical
Status of Adoption of 2009 National Model Codes	Spring	1	1	
Structural Integrity for High-rise Buildings –New Section in IBC/2009	Fall	3	14	Building
Telecommunications Wiring and Fire-rated Assemblies	Winter	4	9	Building/Electrical
To Vent or Not to Vent?	Fall	3	13	Building
Update 2: Certification to Perform Services on Unregulated Underground Heating Oil Tank Systems	Spring	1	13	
US EPA Lead-Based Paint Renovation, Repair and Painting (RRP) Rules	Spring	1	12	
US EPA Rules: RRP, Lead-based Paint Renovation, Repair and Painting	Winter	4	10	
Use of Solid Fuel Appliances in Commercial Cooking Applications	Summer	2	3	Fire Protection /Mechanical
Welcome, Edward Smith	Fall	3	1	
What's New in the IBC/2009?	Fall	3	12	Building
What's New in the IRC/2009?	Fall	3	17	Building

New! Electronic Communication with Plan Review Applicants

In a November 2010 Alert, the Bureau of Construction Project Review announced:

Beginning on or about November 22, 2010, the Department of Community Affairs, Division of Codes and Standards, Construction Plan Review units will begin sending all plan review correspondence electronically.

To assist with this transition please provide an email address on all project review applications. An updated application, including email address, may be found on the bureau's website (<http://www.nj.gov/dca/divisions/codes/offices/bcpr.html>) under the Related Forms section located at the bottom of the page. Correspondence submitted for an existing project should also include email addresses for each applicant (owner and/or owner's agent and architect/engineer).

If you prefer correspondence be sent through regular mail you must check the appropriate box on the project review application. It should be noted that if any applicant contacts opt out of email communication (owner or architect), all correspondence will be sent regular mail. We cannot accommodate partial email communication.

If you would like to email documentation to the BCPR please send to: planreviewintake@dca.state.nj.us

Please take note of a few items before emailing information to BCPR:

- Information should be sent as an attachment. All attachments should be in PDF format or the office may not be able to open, read or respond.
- Do not send duplicate documentation. If you have sent an email response please do not send a copy through regular mail. This may cause duplication of work and thus, slow down the review process.
- Do not send project status questions. The above email address is to be used exclusively for sending requested documentation. If you have a question about a project please contact the appropriate review team. Teams may be reached at the phone numbers listed below.
- **Do not send any correspondence requiring plans or other signed and sealed documentation. Rather, send it along with plans to the following:**

Class I, II, Special Projects, State Buildings Healthcare Facilities Plan Review	NJ DCA Division of Codes and Standards Bureau of Construction Project Review PO Box 817, 101 S. Broad Street, 4th floor Trenton, NJ 08625-0817
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Educational Facilities Plan Review	NJ DCA Division of Codes and Standards Education Plan Review Unit 200 Wolverton Avenue PO Box 821, Building 20, 2nd floor Trenton, NJ 08611
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Casino Projects Plan Review	NJ DCA Division of Codes and Standards Atlantic City Plan Review Office 1601 Atlantic Avenue, 6th floor Atlantic City, NJ 08401
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If you have a question regarding a specific project review teams may be reached at:

Bureau of Construction Project Review	609-984-7850
State Buildings	609-984-7865
Class I, II and Special Projects	609-633-7448
Health	609-633-8151
Education	609-943-5157
Atlantic City	609-441-3679

2006 International Fire Code Adopted with Amendments

In a letter dated February 5, 2009 Directors Wilk and Petrillo wrote:

Dear Construction Officials and Fire Officials:

As fire officials already know and construction officials may be aware, the Department has adopted the 2006 International Fire Code, with amendments, as the new State Fire Prevention Code, N.J.A.C. 5:70-3. This new State Fire Prevention Code took effect on February 1, 2009. The enforcement of this new code will require an increased level of cooperation between the local construction official and the local fire official.

In the past, BOCA published a model fire prevention code that included only maintenance requirements. The International Fire Code, which is referenced in the International Building Code, contains both construction and maintenance requirements. As adopted under the Uniform Fire Code (UFC), the New Jersey edition of the International Fire Code is meant to address the maintenance of buildings and sites in compliance with applicable fire safety requirements. Requirements for the installation of new fire safety equipment are found in the Uniform Construction Code (UCC) or in the retrofit requirements of the UFC, N.J.A.C. 5:70-4.

Local officials need to be aware of the applicability of the requirements of both the UFC and the UCC in order to enforce these codes effectively. Any suspected lack of compliance with the UCC or change in the character of the use should be referred by the fire official to the construction official. The construction official should then cite any verified lack of compliance with the UCC, including any change in the character of the use as described in the rehabilitation subcode of the UCC, N.J.A.C. 5:23-6.31. A change in the character of the use is not necessarily a change in the group designation. For example, a change to a higher degree of hazard, as defined by NFPA 13, which would trigger a change in the required sprinkler protection, would be considered a change in the character of the use and should be cited under the UCC. (See N.J.A.C. 5:23-6.31(g)). Another example of a change in the character of the use is the introduction of equipment or operations that require local exhaust under the mechanical subcode of the UCC. (See N.J.A.C. 5:23-6.31(n)). As always, process equipment is a special case. The UCC applies to the installation of process equipment, but does not impose requirements on the equipment itself. The UFC does contain requirements applicable to process equipment.

See International Fire Code –page 6

2008 NEC and the Rehab Subcode

In a letter dated October 20, 2009 and updated February 3, 2010 Code Specialist Suzanne Borek wrote:

Updating the Rehabilitation Subcode to the NEC/2008 has been delayed. Therefore, the Department is hereby reminding all code users that any work done in an existing building or dwelling continues to be required to comply with the NEC/2005, which is referenced in the rehabilitation subcode, materials and methods, N.J.A.C. 5:23- 6.8(d).

For example, when an existing service panel is changed or upgraded, no AFCI is required.

However, an addition to an existing building is new construction. The addition **only** is required to comply with the 2008 NEC. Work in the existing building continues to be required to comply with NEC/2005. For dwelling units, AFCI for the addition will be required only **if** a new branch circuit is provided. It is important to remember that existing circuits in the existing dwelling may continue to be used.

Finally, if a permit applicant chooses to use the 2008 NEC, guidance is included in the Fall 2009 edition of the *Construction Code Communicator*.

Please contact me if you have any questions. Thank you.

Sincerely,

Suzanne Borek, Code Specialist
State of New Jersey, Div. of Codes and Standards
Code Assistance Unit (609) 984-7609

Concrete Testing Alert

In a letter dated September 16, 2009 Director Wilk wrote:

Dear Construction Official:

It has come to the attention of the Department that several special testing agencies have been indicted in New York City. One of the charges involves fraud in connection with the testing of concrete. Due to these allegations, I am requesting you to do the following:

Please review your files for all Class 1 buildings to determine the name of the special inspection testing agency for special inspections performed from January, 2006 to present. If Testwell Laboratories or Stallone Testing Laboratories did any of the concrete

See Concrete Testing Alert –page 6

Fire Alarm Transmission Channels and Managed Facilities (MFVNs)

In a letter dated November 1, 2010 Director Smith wrote:

Dear Construction Official and Fire Subcode Official:

An issue has arisen in reference to providing phone service to facilities that are required to have a fire alarm system. As many of you are aware, for a few years we have had questions about fiber optic service companies providing phone line service via a package deal with internet and/or television service. This letter provides guidance on whether a service provider can provide the required transmission means to a monitoring company.

Background

Starting in the early 1980's, fire alarm transmissions from protected premises to the supervising station were sent through Digital Alarm Communicator Transmitters (DACTs) over "Plain Old Telephone Service" (POTS). DACTs were originally designed to utilize POTS on the Public Switched Telephone Network (PSTN). POTS is the old copper line system that served every home or business with a telephone line. For many years, only this style of wiring was used and NFPA required that the primary transmission channel be a "telephone line (number)". This ensured that the transmission means was on a reliable circuit to the telephone company central office and then was switched to the number that the caller was trying to reach. Many times, when the signal left the telephone company office, it was carried on optical fiber. All POTS was on a battery backup power system. (Think about how many storms there were while you were growing up and your power went out, but you still had phone service.) POTS was and is a very reliable system, however the telephone company found a better way to transmit its communications and started using light over fiber optic service for telephone transmission. In many areas, POTS has been replaced with optical fiber, so your phone line (number) now comes to you by fiber optic service; you can also receive internet and television service, such as FIOS, by that means.

Code Requirements

The New Jersey Uniform Construction Code currently adopts the International Building Code (IBC)/2009. The IBC/2009 references the National Fire Protection Association (NFPA) 72/2007 standard, which requires that DACTs be connected to the PSTN.

The recently published NFPA 72/2010, which is not adopted by reference in the building subcode, contains a

Concrete Testing Alert

continued from page 5

testing, please contact Louis Mraw of the Office of Regulatory Affairs at 609-984-7672 for instructions as to how to proceed.

Be assured that the Division will work with your office to determine whether the test results are acceptable in accordance with the requirements of the Uniform Construction Code. Realizing that this is a very time-consuming task, please make every attempt to complete this review by the end of November, 2009.

Thank you in advance for your time and effort.

Sincerely,
Cynthia A. Wilk, Director
Division of Codes and Standards

International Fire Code

continued from page 5

The new State Fire Prevention Code also contains requirements applicable to fire hazards at construction sites (Chapter 14 of the International Fire Code). The UCC governs construction with the ultimate goal of ensuring that structures build in this State are safe for occupancy. The UFC is based on a somewhat different mandate which includes fire prevention and firefighter safety. It is for this reason that the local fire official has jurisdiction to deal with fire safety at a construction site. The construction official's role at the site is to ensure that construction proceeds in compliance with the adopted subcodes of the UCC. The UCC does not address the safety of the building or site during construction beyond seeing that the site does not pose risks to the general public.

The New Jersey edition of the 2006 International Fire Code is available online in a view only format at <http://www2.iccsafe.org/states/06NewJerseyFire/>. In addition to a link to view the new code, the Division of Fire Safety's website has a mechanism to submit questions regarding the new code. Frequently asked questions and answers regarding the new State Fire Prevention Code also are posted on the Division's website at <http://www.state.nj.us/dca/dfs/>.

If there are any questions regarding the UCC, as always, please call the Code Assistance Unit at (609) 984-7607. If there are questions about the UFC, the Division of Fire Safety prefers that these questions be submitted electronically through the Division's website, or you may call the Division at (609) 633-6132.

MFVNs

continued from page 6

new term “Managed Facilities Voice Networks” (MFVNs). This term has caused concern for some providers. However, MFVNs are the functional equivalent of PSTN. NFPA 72/2010 states that traditional POTS, Cable and FIOS are permitted for transmission channels as long as the signaling protocols are fully compatible with and equivalent to those of the PSTN. NFPA 72/2010 was amended before printing by a Tentative Interim Amendment (TIA) that clarified the definition in Chapter 3 and the requirements in Chapter 29.

Both NFPA 72/2007 and 2010 require that a secondary power supply be installed to provide a minimum of 24-hour standby power when a fire alarm system is installed. A battery backup unit (BBU) is a compliant secondary power supply. Most fiber optic service providers provide an eight hour BBU supply, in some cases, they provide four hours. So, a separate BBU is required to be installed wherever a monitored fire alarm system is installed.

Guidance

The term “Managed Facilities Voice Networks” was added to clarify that Cable or FIOS companies could provide the telephone line (number) required for DACTs. Because NFPA 72, Section 1.5., Equivalency, allows the local fire subcode official to accept systems that provide equivalent protection, NFPA 72/2007 already addresses this issue when the Cable or FIOS companies provide the telephone line service required by the standard. The Cable or FIOS companies need to provide a means of transferring the signal from the fire alarm communicator to their network and provide the required backup power supply on any interface equipment. MFVNs may be used provided that they offer demonstrated equivalent reliability. When the performance standard is met, the communication method is acceptable and the Local Enforcing Agencies can approve these installations. Attached is a matrix that should be used to evaluate various service providers.

If you have questions please call the Code Assistance Unit at (609) 984-7609 or email codeassist@dca.state.nj.us

Sincerely,

Edward M. Smith, Director
Division of Codes and Standards

International Fire Code

continued from page 6

There are bound to be some adjustments needed as we make the transition to the new State Fire Prevention Code. We would encourage you to work together to continue to ensure the health and safety of the occupants of New Jersey’s buildings.

Sincerely,

Cynthia A. Wilk, Director
Division of Codes and Standards

Lawrence Petrillo, Director
Division of Fire Safety

Installation of Renewable Energy Systems

In a letter dated February 4, 2009 Director Wilk wrote:

Dear Construction Official:

P.L. 2008, c. 90, signed into law by Governor Corzine last October, offers property tax relief for the installation of renewable energy systems. Under this statute, the assessed value of the property is not increased as a result of the installation of a renewable energy system. The law calls for the local construction official to certify that the system meets the requirements of the statute for a renewable energy system.

In order to implement this new law, the Division of Taxation must develop a form. The law also calls for us to work collaboratively with the Board of Public Utilities regarding technical standards for these systems. When the form, standards and rules are in place, we will advise you. Thereafter, the permit applicant will bring a completed form to you and you will certify, by signing the form, that the system has been installed as prescribed and that the required documentation has been submitted. There is nothing for you to do until such time as the form and rules are in place.

In the meantime, if you have any questions regarding this law, please contact the Code Assistance Unit at (609) 984-7607.

Sincerely,

Cynthia A. Wilk, Director
Division of Codes and Standards

Installation of Renewable Energy Systems

In a letter dated December 2, 2009 Director Wilk wrote:

Dear Construction Official:

On February 4, 2009, I sent you a letter concerning P.L. 2008, c.90, a law which offers property tax relief for the installation of renewable energy systems. Under this statute, a property owner who installs a renewable energy system in accordance with all applicable rules, standards and manufacturer's instructions can apply for approval to the local enforcing agency and, if the renewable energy system is approved, to the tax assessor.

I advised you in February that in order for the program to be implemented, the Division of Taxation would first have to adopt an application form. That form has now been adopted. It may be found online at http://www.state.nj.us/treasury/taxation/pdf/other_forms/lpt/cres.pdf.

The form provides a place for the construction official to certify that the application has been approved. The form may be presented to you by the applicant at the time of permit application or prior to final inspection. Once you have signed the form, it should be forwarded to the tax assessor.

We will be meeting with the Board of Public Utilities to determine what standards exist that are applicable to renewable energy systems and should be incorporated into the Uniform Construction Code (UCC). In the interim, the UCC already provided for the use of the manufacturer's instructions and standards. These should be used for plan review and inspection of renewable energy systems. The application may be approved provided that the system, as installed, conforms to these standards.

If you have any questions regarding the implementation of this law, please call the Code Assistance Unit at (609) 984-7607.

Sincerely,

Cynthia A. Wilk, Director
Division of Codes and Standards

Installation of Solar Photovoltaic Power

In a letter dated July 23, 2010 Director Wilk wrote:

Dear Construction Official:

Local code enforcement agencies are receiving an increasing number of applications for the installation of solar photovoltaic (PV) power generating equipment. With this influx of solar energy installations, there has been some confusion as to what constitutes an "electrical generating station" for purposes of determining whether this is an enforcement activity reserved to the State pursuant to N.J.A.C. 5:23-3.11. This letter is intended to clarify which installations should be submitted to the Department for review.

The operative question is whether the PV installation supplies electricity for a building or buildings on site and has net metering. (This is an arrangement through which any unused power generated by the solar panels is "sold" to the utility company.) The amount of electricity that may be generated by these PV installations is limited to the peak usage on the site. By contrast, PV installations that should be considered electrical generating stations for purposes of applying the above rule have no meters and no limits on the amount of power that may be generated. As with more traditional electrical generating stations, the electricity generated at the site is fed back into the grid for use elsewhere.

Should you have any questions, please feel free to contact the Code Assistance Unit at (609) 984-7609.

Sincerely,

Cynthia A. Wilk, Director
Division of Codes and Standards

Satellite Dish Antenna Installations

In a letter dated June 23, 2010 Director Wilk wrote:

Dear Electrical Subcode Officials:

The Department has had discussions with the representatives of GTECH, who are performing the installation of satellite dish antennas and appurtenant wiring at lottery outlets throughout the State. The satellite systems in question are being installed under a contract with the State of New Jersey Lottery Commission.

Satellite Dish Antennas

continued from page 8

Minor Work and Inspections

The actual installation of the satellite dish antenna is exempt from permits as a result of a federal preemption. However, when the communication wiring connecting the satellite dish penetrates a rated assembly, the installation of the telecommunications wiring from the antenna to the terminal is considered minor work and thus requires a construction permit (N.J.A.C. 5:23-2.17A(c)4iv). The contractor (GTECH) is required to have its installers identify each retail location where a satellite installation is taking place that penetrates a fire-resistance rated assembly. In these instances, the contractor is required to contact the local code enforcement agency to apply for a permit and, once the work is completed, request an inspection. Because there were questions as to whether permits were required, there was a period of time where a number of satellite dish antennae were installed without obtaining construction permits. In the case of work performed before the issuance of this letter, the contractor is required to identify those installations that involved a penetration through a fire resistance rated assembly and apply for "Minor Work" construction permits for these installations. In cases where no penetration of a rated assembly is necessary, there are no permits required, and therefore, there is no notice required. If work is performed after the issuance of this letter that would require a construction permit, "Minor Work" or otherwise, and none is obtained, the construction official is authorized to issue the appropriate penalty.

The inspection performed is under the jurisdiction of the electrical subcode due to the fact that the communication wiring being installed is regulated by the electrical subcode. Inspectors should focus on Section 300.21 of the National Electrical Code entitled, "Spread of fire or products of combustion," which requires openings around electrical penetrations of fire resistance-rated assemblies to be fire-stopped using an approved method and on Chapter 8 for the material installation and the support of the wiring and the raceway. Again, this type of installation is "Minor Work" therefore, the inspection is based upon what is visible at the time of *New Jersey Is An Equal Opportunity Employer Printed on Recycled Paper and Recyclable* the inspection and the certificate of approval needs to state that the work performed substantially complies with the UCC. Finally, the Board of Examiners of Electrical Contractors requires that this work be performed either by a New Jersey licensed electrical contractor or by an installer who possesses a Telecommunications Wiring Exemption Certificate.

Fees

The fee calculation for the installation of telecommunications wiring falls within the electrical

See Satellite Dish Antennas -continued at right

Satellite Dish Antennas

continued from left

technical section. The Uniform Construction Code provides that, for electrical fixtures and devices, the fees are to be based upon the number of electrical fixtures or rating of electrical equipment and devices to be installed. Therefore, in this case, the fee is based on the number of "communication points" which are the telecommunication wires installed and connected to the lottery equipment in the building. There is no additional fee that can be charged to look at the penetrations resulting from the installation. This is all part of the inspection related to the total number of "communication points."

Should you have any questions, please feel free to contact the Code Assistance Unit at (609) 984-7609.

Sincerely,

Cynthia A. Wilk, Director
Division of Codes and Standards

Telecommunications Wiring and Fire Rated Assemblies  

In a letter dated March 5, 2009 Director Wilk wrote:

Dear [Electrical] Subcode Officials:

This letter provides a clarification of the permit and inspection requirements for the installation of telecommunications wiring, which includes telephone, data and cable television. This type of work is minor work (in accordance with N.J.A.C. 5:23-2.17A) in Class 3 buildings where fire rated assemblies are penetrated, and in all Class 2 and Class 1 buildings, including multi-family residential high rise structures.

The Uniform Construction Code (UCC) states that notice of minor work must be given to the enforcing agency before the work commences (N.J.A.C. 5:23-2.17A(a)). Oral notice meets this requirement and may be provided in person or by telephone before the work begins (N.J.A.C. 5:23-2.17A(b)1). In addition to providing notice to the enforcing agency, a permit application must be filed and fee paid within five business days of the date of oral notice (N.J.A.C. 5:23-2.17A(b)2).

Construction permit fees for the installation of telecommunications wiring should be charged based on the ownership of the building. For a building that has one owner with multiple tenants, the fee is the minimum fee for each floor penetration (located on the lower portion of the electrical technical section) and the total

See Telecommunications Wiring -page 10

Telecommunications Wiring

continued from page 9

number of drops going to each individual tenant (on the upper portion of the electrical technical section, listed as "communications points"). For a building that contains individually owned units, a construction permit is issued for the core installation. The minimum fee is charged for penetrations through each floor. A permit and fee is also required for each individual unit that receives a drop and the fee is based on the number of drops to each unit; it is placed on the "communications point" line.

The inspections confirm compliance with the National Electrical Code (NEC)/2005 with specific attention to Section 300.21, Spread of Fire or Products of Combination. This section states that openings around electrical penetrations through fire-resistant walls, partitions, floors, or ceilings are required to be fire-stopped using approved methods to maintain the fire-resistance rating. Chapter 8 of NEC/2005 applies to the specific type installation, typically the supporting and securing of the wiring.

Finally, any work being performed in or on a building or structure is subject to the regulations of the UCC. The Board of Examiners of Electrical Contractors requires that this work be performed either by a New Jersey licensed electrical contractor or by an installer who possesses a Telecommunications Wiring Exemption Certificate.

In summary, minor work is not exempt from the UCC. The requirements for minor work are in the UCC at N.J.A.C. 5:23-2.17A. Before work begins, oral notification is required to be given to the enforcing agency; the electrical technical section of the construction permit application must be signed by a New Jersey licensed electrical contractor or by an applicant who possesses a Telecommunications Wiring Exemption Certificate within five business days. By definition, "minor work" does not require a plan review; therefore, plans are not required to be submitted for this type of work.

A notice of violation for work performed without a permit is issued for any installations that are not in compliance with the UCC regulations. If compliance is not achieved, then a stop work order is posted and issued in accordance with regulations.

Should you be in need of further assistance on this issue, please contact Suzanne Borek of the Code Assistance Unit at (609) 984-7609.

Very truly yours,

Cynthia A. Wilk, Director

US EPA Lead-Based Paint Renovation, Repair and Painting (RRP) Rules

In an August 2010 Alert, the Division reported:

What are the RRP Rules?

The US Environmental Protection Agency (EPA) has adopted rules for contractors performing work that disturbs lead-based paint. The rules, known as the RRP rules, apply to renovation, repair, painting or any other activity that disturbs painted surfaces. These rules require that contractors performing work in housing built before 1978 or in child-occupied facilities (schools or day care centers) be certified by the EPA. The certified renovator must be trained in lead-safe work practices through completion of an EPA-accredited course and is responsible for compliance with the US EPA rules. The contractor is also required to distribute a lead pamphlet before starting work. The rules exempt work that will disturb six square feet or less of paint per room in the building's interior or 20 square feet of painted surface or less on the exterior. Work in buildings that have been tested and found to be free of lead-based paint is also exempt. ***The deadline for contractors to be certified has been extended to October 1, 2010.*** (Individuals must enroll in a certified class by September 30, 2010 and must complete the class by December 31, 2010.)

Who is responsible for enforcement of these rules?

States may apply to the US EPA for authorization to administer this program. The EPA is the enforcement agency in states that do not apply for authorization. New Jersey has *not* applied. This means that the EPA is the enforcement agency for the RRP rules in New Jersey.

Is the EPA certification to be treated as a prior approval for obtaining a permit under the UCC?

No.

Does the code official have any enforcement responsibility with regard to these EPA rules?

No. As stated above, enforcement rests with the EPA.

This information has been provided to you so that you are aware of the new EPA requirements and are able to respond to questions from homeowners or contractors. If anyone has further questions or would like additional information, you may direct them to the EPA website at <http://www.epa.gov/lead/pubs/renovation.htm>. There is also a link on the Division's webpage.

Outdoor Wood Boilers

In a letter dated June 3, 2009 Director Wilk wrote:

Dear Construction Official:

As you may recall, in November 2008, I sent a letter regarding issues that have arisen with outdoor wood boilers. As promised, we reached out to the Department of Environmental Protection (DEP) and discussed the difficulties inherent in issuing permits under the Uniform Construction Code to those who want to install outdoor wood boilers only to have enforcement action taken against them at some future date. Unfortunately, there is no ready solution to this problem. There is no way to predict whether a given outdoor wood boiler, once installed and in use, will comply with the DEP rules.

To ensure that any homeowner who applies for a permit to install an outdoor wood boiler is aware that this is the case, we are asking that local construction officials have permit applicants sign the attached acknowledgement and retain a copy in the permit file. A copy of the relevant section of the DEP rules also is attached for your reference (N.J.A.C. 7:27-3). Under these rules, smoke from outdoor wood boilers may be visible for not more than three minutes in any consecutive 30 minute period. These rules apply only to indirect heat exchangers. Outdoor wood boilers meet the definition of indirect heat exchanges. Chimineas, fireplaces, and traditional wood-burning stoves do not.

For your convenience, the November 2008 letter, the DEP rules and the acknowledgement to be signed by permit applicants all are available on the Division's website at www.state.nj.us/dca/divisions/codes. Should you have any questions, please feel free to contact the Code Assistance Unit at (609) 984-7607. Homeowners with questions regarding the DEP standards should be referred to the Air Compliance and Enforcement Unit within the DEP at (609) 633-7288.

Sincerely,

Cynthia A. Wilk, Director
Division of Codes and Standards

Outdoor Wood Boilers

Relevant section of the DEP rules:

7:27-3.1 Definitions

"Indirect heat exchanger" means equipment in which heat from the combustion of fuel is transferred by conduction through a heat-conducting material to a substance being heated, so that the latter is not contacted by, and adds nothing to, the products of combustion.

"Internal cross-sectional dimension" means any maximum linear perpendicular distance from an inside wall of a stack or chimney to the inside of an opposite wall, such as the diameter of a circular cross section or the length or width of a rectangular cross-section.

7:27-3.2 Smoke emissions from stationary indirect heat exchangers

(a) No person shall cause, suffer, allow or permit visible smoke to be emitted into the outdoor air from the combustion of fuel in any stationary indirect heat exchanger except as provided in (b) below.

(b) No person shall cause, suffer, allow or permit smoke the shade or appearance of which is darker than number 1 on the Ringelmann smoke chart or greater than 20 percent opacity, exclusive of visible condensed water vapor, to be emitted into the outdoor air from the combustion of fuel in any stationary indirect heat exchanger having a rated hourly capacity of 200 million BTU or greater gross heat input and discharging through a stack or chimney having all internal cross-sectional dimensions of 60 inches or greater.

(c) The provisions of (a) and (b) above shall not apply to smoke which is visible for a period of not longer than three minutes in any consecutive 30-minute period.

Outdoor Wood Boiler Construction Code Permit Notice and Acknowledgement

Under the New Jersey Administrative Code, Title 7, Chapter 27 (N.J.A.C. 7:27), Air Pollution Control, the NJ Department of Environmental Protection (DEP) regulates smoke emissions from indirect heat exchangers. Outdoor wood boilers (OWB) and outdoor hydronic heaters (OHH) meet the definition of indirect heat exchangers and are therefore subject to the requirements of N.J.A.C. 7:27-3 "Prohibition of Smoke from the Combustion of Fuels."

Smoke from OWBs or OHHs have been known to exceed DEP's standards. The manufacturers are not required to label, document or otherwise disclose the quantity of smoke produced by these devices. There is no means to predict whether a given outdoor wood boiler, when in use, will violate the DEP smoke emission limit.

Issuance of a Uniform Construction Code (UCC) permit does not guarantee that a unit will meet the DEP requirements. An outdoor wood boiler that has been installed in accordance with all applicable requirements established under the UCC may still be subject to some future enforcement action by the NJDEP, including penalties to the vendor, installer and property owner.

Homeowners with questions about compliance with the emission standard are advised to contact the NJDEP at (609) 633-7288 or the county health department.

I acknowledge that I have been given a copy of this Notice

Property Owner or Authorized Representative

Date

Permit Extension Act of 2008 Extension

In a letter dated January 25, 2010 Director Wilk wrote:

Dear Construction Official:

On January 18, 2010, former Governor Jon S. Corzine signed a bill into law to extend the expiration date of certain permits under the "Permit Extension Act of 2008," P.L. 2008, c.78, by an additional two and a half years. Under this new law, P.L. 2009, c. 336, only the dates have changed. All of the other terms and conditions of the Permit Extension Act remain as they were. Below please find updated guidance on the application of the Permit Extension Act which has been revised to reflect the new expiration dates.

As code officials, you will continue to deal with this law on two levels: its impact on permits issued under the UCC and its impact on prior approvals. The Act stops the clock on the running of approvals during the "extension period," which is now defined as January 1, 2007 through December 31, 2012. This means that any UCC permit that was valid as of January 1, 2007 will still be valid on December 31, 2012. On December 31, 2012, when the clock starts again, the permit is valid for an additional six months or for the time that would have remained on January 1, 2007, **whichever is shorter**. Any permit issued **during** the extension period (between January 1, 2007 and December 31, 2012) will be valid until June 30, 2013 (six months beyond the end of the extension period,) or until the date when it would have expired if the Permit Extension Act had not been passed, **whichever is longer**. (Some examples of how to apply the Permit Extension Act to UCC permits are enclosed.)

There continues to be an exclusion in the Act for permits issued for projects in environmentally sensitive areas. To determine whether your municipality or any portion of your municipality is an "environmentally sensitive area" as that term is defined in the Act, please refer to the enclosed attachment.

In order to determine whether a prior approval qualifies for extension under this Act, construction officials should check with the agencies and officials responsible for issuing those prior approvals to make sure that those prior approvals remain in effect. A list of the approvals included and of those excluded by the Act is enclosed.

Extension -continued at right

Ordinary Maintenance

continued from left

In those cases where plan review was done by DCA, any plan release that was valid on or after January 1, 2007 may be used to support issuance of a permit through June 30, 2013. Once again, before issuing a permit, it is necessary to check with the agencies or officials involved to ensure that any required prior approvals remain valid.

Information, including the full text of the Act, is posted on the Division's website at www.nj.gov/dca/divisions/codes for your use. Should you have any questions about the application of the Permit Extension Act, please feel free to call the Code Assistance Unit at (609) 984-7607.

Sincerely,

Cynthia A. Wilk, Director
Division of Codes and Standards

- Attachments: Definition of "Environmentally Sensitive Area"
- Examples of Application to Permits Issued under the UCC
- List of permits included and excluded

Permit Extension Act of 2008 - Definition of "Environmentally Sensitive Area"

"Environmentally sensitive areas" include areas designated in the State Development and Redevelopment Plan as Planning Area 4B (Rural/Environmentally Sensitive), Planning Area 5 (Environmentally Sensitive), or a critical environmental site (Plan can be viewed at www.nj.gov/dca/divisions/osg/plan/stateplan.shtml); the Highlands Region (excluding any area designated for growth in the Highlands regional master plan adopted by the Highlands Water Protection and Planning Council) (Plan can be viewed at <http://www.nj.gov/njhighlands/master>), and the Pinelands Area as per N.J.A.C. 13:18A-11 (excluding any growth area designated in the comprehensive management plan prepared and adopted by the Pinelands Commission, www.nj.gov/pinelands/images/pdf%20files/pinelandsprotectionact1.pdf).

Permit Extension Act of 2008 - Examples of Applying the Act to UCC Permits

The Permit extension Act extends all permits that were open and valid as of January 1, 2007. Under the UCC rules, a construction permit lapses if (1) no work is done for a year or (2) work, having been started, is discontinued for six months. (See N.J.A.C. 5:23-2.16(b)) The following are some examples of how certain scenarios would be affected by the Permit Extension Act:

Examples:

1. Construction permit was obtained prior to January 1, 2006 and no work was done. The permit has lapsed and is not revived by the Permit Extension Act because it was not a valid, open permit on January 1, 2007.
2. Construction permit was obtained on April 1, 2006 and no work was done. The permit was deemed to have lapsed as of April 1, 2007. However, the permit is now deemed to have been revived by the passage of the Permit Extension Act. Since it had been valid for three more months as of January 1, 2007, it will continue to be valid for three more months as of July 1, 2010, and its new expiration date, if it is not acted upon, will be October 1, 2010.
3. Construction permit was obtained on October 1, 2006 and no work was done. The permit was valid for nine more months as of January 1, 2007 and is now deemed to have been revived, and to continue to be valid as of July 1, 2010. However, since a permit that is only valid because it was extended by the Permit Extension Act can only remain valid for six months following the end of the extension period, the permit would only be valid for six more months, and would expire on January 1, 2011, if not used by then.
4. Construction permit is obtained between January 1, 2007 and January 1, 2010. Though the time would not begin to run until July 1, 2010, the permit would expire on January 1, 2011, since the Permit Extension Act does not allow any extensions beyond January 1, 2011 unless the permit would have continued in existence beyond that date had the Permit Extension Act not been adopted.
5. Construction permit is obtained after January 1, 2010. Since the permit is valid for a year, it is unaffected by the January 1, 2011 cut-off date and expires one year from the date of issuance, just as it would if the Permit Extension Act had not been adopted.

Permit Extension Act of 2008 - List of Permits and Approvals Included and Excluded

The law specifically includes UCC permits and includes the following:

- Any approval of a soil erosion and sediment control plan granted by a local soil conservation district,
- Any waterfront development permit,
- Any permit issued pursuant to "The Wetlands Act of 1970,"
- Any permit issued pursuant to the "Freshwater Wetlands Protection Act,"
- Any approval of an application for development granted by the Delaware and Raritan Canal Commission,
- Any permit issued by the New Jersey Meadowlands Commission,
- Any approval of an application for development granted by the Pinelands Commission and determination of municipal and county plan conformance pursuant to the "Pinelands Protection Act,"
- Any permit issued or center designations made pursuant to the "Coastal Area Facility Review Act,"
- Any septic approval,
- Any highway access permit or right-of-way permit granted by the Department of Transportation,
- Any approval granted by a sewerage authority*,
- Any approval granted by a municipal utilities authority,
- Any approval issued by a county planning board,
- Any preliminary and final approval granted in connection with an application for development pursuant to the "Municipal Land Use Law,"
- Any plan endorsement and center designations approved pursuant to the "State Planning Act,"
- Any permit or certification issued pursuant to the "Water Supply Management Act,"
- Any permit granted authorizing the drilling of a well, exemption from a sewerage connection ban granted*, wastewater management plan approved, and pollution discharge elimination system permit pursuant to the "Water Pollution Control Act,"
- Any certification granted pursuant to "The Realty Improvement Sewerage and Facilities Act,"
- Any certification or approval of water and sewerage facilities for 50 or more units granted pursuant to P.L.1971, c.386,
- Any certification issued and water quality management plan approved pursuant to the

See Included and Excluded -page 15

Included and Excluded *continued from page 14*

"Water Quality Planning Act,"

- Any approval granted pursuant to the "Safe Drinking Water Act,"
- Any permit issued pursuant to the "Flood Hazard Area Control Act," P.L.1962.

*Note: The continuation of an approval for connection to a sanitary sewer is contingent on the availability of sufficient capacity.

The law specifically excludes the following:

- Any permit or approval issued by the government of the United States or any agency or instrumentality thereof, or any permit or approval for which the expiration is determined under Federal law,
- Any permit or approval issued pursuant to the "Pinelands Protection Act," if the extension would result in a violation of federal law, or any State rule or regulation requiring Federal approval,

See Included and Excluded –continued at right

Included and Excluded *continued from left*

- Any permit or approval issued within an environmentally sensitive area;
- Any permit or approval within an environmentally sensitive area issued pursuant to the "Highlands Water Protection and Planning Act,"
- Any permit or approval issued by the Department of Transportation other than a right-of-way permit or a highway access permit,
- Any permit or approval issued pursuant to the "Flood Hazard Area Control Act," except where work has commenced in any phase or section of the development, on any site improvement or on any buildings or structures, and
- Any coastal center designated pursuant to the "Coastal Area Facility Review Act," that as of March 15, 2007 (a) had not submitted an application for plan endorsement to the State Planning Commission, and (b) was not in compliance with the provisions of the Coastal

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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