

NEW JERSEY DEPARTMENT OF
COMMUNITY AFFAIRS



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Ten Volts or More

Apparently, an organization of licensed electrical contractors has published and distributed a flyer to local code enforcement agencies stating that a licensed electrical contractor is required for **any** electrical work **over ten volts**.

Electrical work on projects with a potential intensity of **ten volts or more** usually requires a licensed electrical contractor. However, high-voltage intensity is not the only condition that requires the expertise of an electrical contractor. A homeowner who wishes to perform his own electrical work may do so with limitations.

The Electrical Contractors licensing law, N.J.S.A. 45:5A-18, "Exempt Work or Construction" (n), states that a homeowner of a single-family, detached dwelling unit may perform his own electrical work without requiring an electrical license. The voltage in dwelling units is greater than **ten volts**.

Therefore, if you see or have this flyer posted, it should be removed because it contains misleading information.

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

Source: Suzanne Borek
Code Assistance Unit

When are Ice Shields Required?

The Code Assistance Unit has received numerous inquiries about ice-shield requirements for Group R-5 buildings. Let us compare the requirements in the 1995 Council of American Building Officials (CABO/1995) One- and Two-Family Building Code with the provisions in the 2000 edition of the International Residential Code (IRC/2000).

Section R905.2.7.1 of the IRC/2000 requires ice shields in areas where the average daily temperature in January is 25° F or less. Section 903.3 of CABO/1995 required ice shields in areas where the average daily temperature in January was 25° F or less, or where there was a possibility of ice forming along the eaves and causing a backup of water.

As one can see, CABO/1995 had an additional requirement that was not included in the IRC/2000. Therefore, ice shields are required only if the average daily temperature in January is 25° F or less. According to a report by the United States Department of Commerce, National Climatic Data Center, entitled "Climatology of the United States, No. 81," only New Jersey's northwest area (Sussex County) averages a January temperature of 25° F or



Richard J. Codey
Acting Governor



Susan Bass Levin
Commissioner

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less. Therefore, the northwest area of New Jersey is the only area where ice shields are required, in accordance with the IRC/2000 requirements.

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

Source: Marcel Iglesias
Code Assistance Unit

Billboards on Public Land Now Subject to DCA's Sole Jurisdiction under the UCC

Effective July 6, 2004, the Uniform Construction Code rules have been amended to provide that the Department of Community Affairs is now the sole enforcing agency for billboards located on land owned or controlled by any State, county, or local department, agency, board, commission, authority, or instrumentality.

The definition of a "billboard" is "any sign which exceeds 32 square feet in area on any face, except for signs which advertise or otherwise identify activities performed upon the property on which the sign is located." The rule further distinguishes between "pylon signs" on the one hand, and "ground signs" and "wall signs" on the other. A pylon sign is an elevated sign that either has its bottom edge 15 feet or more above ground level, or is mounted on the roof of another structure. A ground sign is mounted on the ground or less than 15 feet above the ground, while a wall sign is mounted on the wall of another structure so that it is exposed to wind loads from one side only.

Though the rule adoption was under the Department's existing statutory authority to designate categories of buildings and structures as being under its sole enforcement authority, the New Jersey State Legislature, with the enactment of P.L. 2004, c. 42, effective June 29, 2004, endorsed the rulemaking action. This new statute, in addition to making various other changes in the regulation and taxation of outdoor advertising signs, amended the State Uniform Construction Code Act by adding the following new Subsection c to *N.J.S.A. 52:27D-129*:

- c. Notwithstanding any other provision of law, rule, or regulation to the contrary, except for signs which advertise or otherwise identify activities performed on the property on which the sign is located, the

Department of Community Affairs shall be the sole enforcing agency with regard to outdoor advertising signs which exceed 32 square feet in area on any face and which are located on land owned or controlled by any public entity, including but not limited to any State, county, or local department, agency, board, commission, authority, or instrumentality.

If you have any questions regarding this matter, please call me at (609) 292-7898.

Source: Michael Ticktin, Esq.
Chief, Legislative Analysis

New Jersey Register Adoptions

Date: July 6, 2004
Adoption: 36 *N.J.R.* 3274(a)
Summary: These adopted amendments clarify that the Department of Community Affairs is the sole enforcing agency for billboards erected on public lands to ensure that the requirements of the Uniform Construction Code (UCC), including all prior approvals, are being met. In addition, these adopted amendments delete high-pressure boilers, refrigeration systems, and pressure vessels from the list of enforcement activities reserved to the Department because Governor's Reorganization Plan No. 002-2002 transferred these programs to the New Jersey Department of Labor. Finally, these adopted amendments establish Departmental fees for permits for billboards.

Date: July 6, 2004
Adoption: 36 *N.J.R.* 3275(a)
Summary: These adopted amendments provide that proponents for code changes may submit Rehabilitation Subcode code change proposals to the Department at any time and that those proposals submitted by January 31 will be considered with the changes received during the previous calendar year. In addition, these adopted amendments incorporate language into the UCC to list the items that constitute a valid Rehabilitation Subcode code change proposal so that proponents may submit code change proposals without the prescribed form. Finally, these adopted amendments insert "model" before "code" in the rule text to provide a distinction between proposals for

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23rd ANNUAL BUILDING SAFETY CONFERENCE OF NEW JERSEY 2004

The evaluations have been reviewed and the results have been tabulated. Conference attendees have indicated another resounding success. The selection of seminars, networking opportunities, and award presentations were the highlights of our three days at Bally's Park Place in Atlantic City. All had a good time and there were some winners, too!

Joseph J. Santangelo, Electrical Inspector of the Year
Hamilton Township, Atlantic County

Edward J. Grobelny, Fire Protection Inspector of the Year
East Brunswick Township, Middlesex County

Thomas McGonigle, Plumbing Inspector of the Year
Atlantic City, Atlantic County

Joseph M. Valeri, Building Inspector of the Year
West Windsor Township, Mercer County

Edeltraut DeLuca, Technical Assistant of the Year
Vernon Township, Sussex County



Participants (from left to right): Tom McGonigle, Plumbing Inspector; Joe Valeri, Building Inspector; William M. Connolly, Director of the Division of Codes and Standards; Edie DeLuca, Technical Assistant; Joe Santangelo, Electrical Inspector; Ed Grobelny, Fire Protection Inspector.

The dates for the 2005 Building Safety Conference are May 4-6, 2005, to be held once again at Bally's Park Place in Atlantic City. **Mr. Matthew Valvano**, Building Subcode Official for the City of Linden in Union County was selected to receive a complimentary registration. We will look forward to seeing each of you at next year's conference.

If you have any questions, please call me at (609) 984-7820.

Source: Susan H. McLaughlin
Supervisor, Education Unit
Bureau of Code Services

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changes to the model construction codes and proposals for changes to the Rehabilitation Subcode of the UCC.

Date: July 19, 2004
Adoption: 36 N.J.R. 3397(c)
Summary: This adopted amendment revises the requirements of the Elevator Safety Subcode of the UCC to specify that the owner, or an authorized representative of the owner, must either reside or maintain an office in the State of New Jersey for the purpose of service of notices.

Date: August 2, 2004
Adoption: 36 N.J.R. 3525(b)
Summary: This adopted amendment deletes the reference to one- and two-family dwellings as a basis for determining jurisdiction over Liquefied Petroleum (LP) gas installations. LP gas installations now are regulated based upon the quantity of the fuel (2,000 gallons or less), not the use of the structure where the containers are installed.

Date: August 16, 2004
Adoption: 36 N.J.R. 3894(d)
Summary: This adopted amendment assigns building and fire protection plan review and field inspection responsibilities for some of the sections in Chapter 4 of the Building Subcode, entitled "Special Detailed Requirements Based on Use and Occupancy," and for Section 1621.3.10.1 of the Building Subcode, entitled "Fire Protection Sprinkler Systems."

Date: October 4, 2004
Adoption: 36 N.J.R. 4440(a)
Summary: These adopted amendments authorize an enforcing agency to revoke or cancel any permit in the event that any work on a construction project is not completed within three years of the date of issuance of the permit, with exceptions for interior improvements not visible from outside a residential building, buildings at which all exterior work and site improvements have been completed, and projects under the control of a mortgagee in possession. (Note: The operative date for these amendments is January 14, 2005. Please see the article in this issue of the *Construction Code Communicator* entitled "Update on Revocation of Permits for Uncompleted Buildings" for additional information.)

Date: October 4, 2004
Adoption: 36 N.J.R. 4441(a)
Summary: These adopted amendments, which bring the rules into conformance with a recent revision to the Uniform Construction Code Act, increase the maximum penalty that can be issued by local enforcing agencies for violations of the UCC from \$500 to \$2,000.

Date: October 4, 2004
Adoption: 36 N.J.R. 4442(a)
Summary: This adopted amendment revises the rule concerning review committees to eliminate a provision prohibiting the appointment of any person to more than two consecutive terms.

Date: October 18, 2004
Adoption: 36 N.J.R. 4814(a)
Summary: These adopted amendments add "Group" and "Use Group" to the definition section of the UCC making the two terms interchangeable, which is necessary as a result of the adoption of the 2000 edition of the International Building Code as the Building Subcode of the UCC.

Date: November 15, 2004
Adoption: 36 N.J.R. 5090(a)
Summary: These adopted amendments to the UCC establish enforcement responsibilities for special amusement buildings.

Source: Megan K. Sullivan
 Code Development Unit

'Tis the Season

As many of you know, the New Jersey State Commission of Investigation (SCI) just completed a series of hearings on problems with residential construction. One of the issues publicized during the hearings was the acceptance of gifts of various kinds (e.g., food, construction materials, golf outings, and trips) by code officials. These gifts all were dutifully recorded in the financial records of the givers. I think that a word to the wise is in order here.

The acceptance of any kind of benefit or gift is covered under *N.J.A.C. 5:23-5.25(a)7* and should have been reported. The code refers to failure to report "an offer or bribe or other favor." This means any favor. The only safe thing to accept is nothing! Furthermore, the acceptance of any gift is almost undoubtedly a violation of local ethics laws.

I know that the vast majority of licensed code officials understand the ethical implications here and refuse any sort of benefit offered by a contractor. The acceptance of a plate of sandwiches, a box of donuts, or an invitation to a holiday party may be viewed as a very innocent thing, but we serve as public officials and we hold a public trust. The acceptance of any sort of gift may be viewed as a violation of that trust. Anything offered by a business that might benefit from the "goodwill" of the code official should be politely, but firmly, refused.

If you have any questions or concerns, please ask your municipal ethics board (if there is one), your municipal attorney, or the Division of Local Government Services, which you may reach at (609) 292-4537. The Division of Local Government Services is responsible for enforcement of the Local Government Ethics Law in municipalities that do not have their own board. As an alternative, you may call the Office of Regulatory Affairs at (609) 984-7672.

Source: William M. Connolly
 Director, Division of Codes and Standards

This rule amendment is expected to increase the number of short-term accommodations available to people with disabilities that would benefit from them, without imposing an unreasonable cost to the facility.

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

Source: Emily W. Templeton
 Code Development Unit

Assisted Living: Short-Term Stays 

The Department of Community Affairs proposed an amendment to the Barrier Free Subcode that will require an assisted-living facility to provide some accessible accommodations when it offers its residential units for short-term stays of less than 30 days.

Over a year ago, it came to the Department's attention that some assisted-living facilities, which are allowed to construct dwelling units as adaptable rather than fully accessible, were making the dwelling units available for respite care or for short-term stays. In some cases, when an interested person with a disability mentioned that their need was for an accessible room, the response was that adaptations are not made for short-term stays.

Assisted-living facilities are Group I-2, but because the dwelling units are more like apartments than like nursing-home facilities, they were allowed to be constructed as adaptable. Adaptable dwelling units (which are Group R-2) are allowed to have some features in the kitchen and bathroom that the resident can adapt to meet his or her own needs. Allowing adaptation is sensible when the person will be living in the dwelling unit for an extended period of time. It is not sensible for short-term stays.

Therefore, when an assisted-living facility decides to make available for a short-term stay dwelling units which were constructed as adaptable because they were intended to be occupied as a residence, the units made available will be required to be made accessible. In short, the adaptable features will be adapted and made accessible. Fundamentally, this means that grab bars must be installed in the bathroom to facilitate transfers, the vanity under the lavatory must be removed to ensure that the required clear floor space is provided, and any cabinets underneath the 30-inch length of work space in the kitchen must be removed to allow a forward approach. In addition, the kitchen cabinets might need to be lowered to the required accessible height.

Circular Stair Confusion 

Since the adoption of the 2000 editions of the International Building Code (IBC) and the International Residential Code (IRC) as the Uniform Construction Code's (UCC) Building Subcode and One- and Two-Family Dwelling Subcode, there has been some confusion about proper sizing requirements for circular stairs. This has been due, in part, to a change in the IBC and the IRC from the Building Officials and Code Administrators code and the Council of American Building Officials code on how to measure the stair, the differences in where the dimensions are taken, and what values are to be used, as well as a misprint in the IBC. The following illustrations should help clarify the issue.

The IRC in R314.6 requires the confirmation of three dimensions for Group R-5 buildings. The first dimension is the tread depth, measured from nosing to nosing ". . . between the vertical planes of the foremost projection of the adjacent treads . . ." at 12 inches from the narrowest part of the tread. This dimension may not be less than 11 inches. The second dimension is at the narrowest part of the tread. This is required to be not less than 9 inches. The final dimension is the riser height. This may be no less than 8¼ inches, as indicated in R314.2.

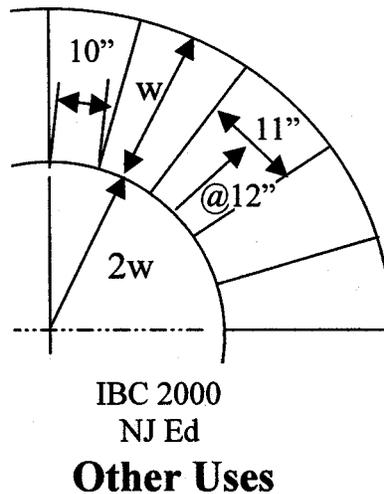
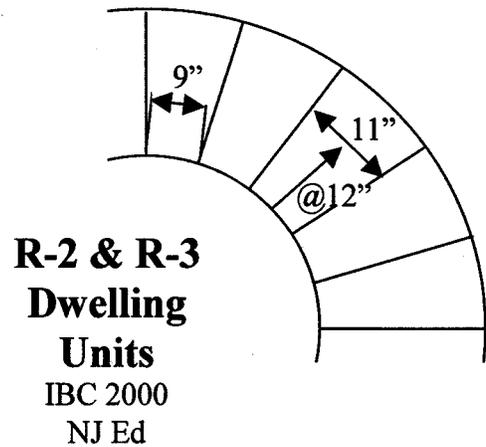
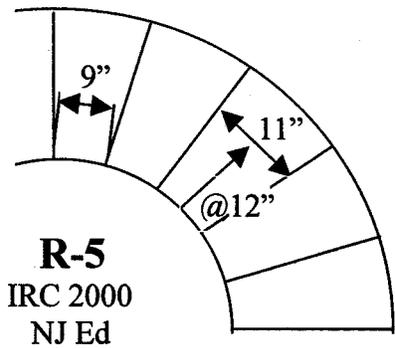
For all buildings except those within Groups R-5 and R-3, and within dwelling units in Group R-2 buildings, the IBC in 1003.3.3.7 requires one additional dimension be taken: the inside radius of the stair curve. This requirement is based on the actual width of the stair. The minimum radius is twice the width of the stair. The other dimensions to be confirmed do not differ, but their values may differ as follows: nose-to-nose is 11 inches at 12 inches from the narrowest part of the tread, the narrowest dimension of the tread is 10 inches, and the maximum rise is 7 inches.

The IBC at 1003.3.3.7 also addresses circular stairs in Group R-3 and within dwelling units in Group R-2 buildings. The misprint is located here; the exception was meant to be deleted completely and a substitute text inserted. The requirements to be inserted are identical to those found in

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the IRC for Group R-5. The actual requirements are found in *N.J.A.C. 5:23-3.14(b)10vii* and *viii*. Three dimensions are required to be checked: the nosing to nosing, 11 inches at 12 inches; the narrowest part of the tread, 9 inches; and the maximum riser height, not to exceed 8¼ inches.

Though the requirements for circular stairs are similar for each of the groups, the values differ slightly. The designer of the building, the builder of the stairs, and the inspector need to confirm carefully that the appropriate requirements are applied to each specific circular stair.



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

Source: Jeff Applegate
Code Assistance Unit

Chimney Certification Form

The Department of Community Affairs has received word that some municipalities are requiring the submission of a completed Chimney Certification Form, Uniform Construction Code (UCC) Standard Form F370, before the issuance of any permit for the replacement of fuel-fired equipment. This should not be.

The chimney certification form is required per *N.J.A.C. 5:23-2.20(c)*, "Tests and Special Inspections;" however, as stated on the F370 itself, the code enforcement office must receive the form before final inspection.

Standard Form F370 allows the contractor installing the replacement equipment to certify proper sizing, lining, and cleaning of the chimney/vent. The construction official may refuse to accept a signed certification form from a contractor if the construction official has reason to believe the certification is not accurate.

The contractor may choose not to submit the certification, in which case the contractor must sign and date the form in the space under "Certification Not Submitted." If this option is chosen, the contractor agrees to be present for the inspection to remove and reinstall the chimney vent connector.

NOTE: As stated in *N.J.A.C. 5:23-2.20(c)*, certifications from homeowners will not be accepted in lieu of the required inspection.

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

Source: Thomas C. Pitcherello
Code Assistance Unit

CO Alarms: One- and Two-Family Detached Homes

Since April 7, 2003, the Department of Community Affairs has required the installation of carbon-monoxide (CO) alarms in one- and two-family dwellings. The installation of CO alarms in the immediate vicinity of all sleeping rooms in the dwelling is required if the dwelling contains a fuel-burning appliance or has an attached garage.

Now, what does "immediate vicinity of all sleeping areas" mean? Since a CO alarm is required to meet the listing and labeling requirements of UL 2034 and NFPA 720, it must be clearly audible in all bedrooms, over background noise levels, and with all intervening doors closed from ten feet away. This requires a minimum rating of 85 decibels.

If the alarm is intended to notify occupants in the same room, the alarm may sound at 75 decibels from ten feet away. Therefore, in most cases, CO alarms listed and labeled as above should be within ten feet of the sleeping areas (i.e., bedrooms).

NOTE: This requirement does NOT apply to furnace rooms, laundry rooms, garages, etc. CO alarms are to be installed in the sleeping areas OR within the immediate vicinity of the sleeping areas (in the hallway, for example).

Lastly, remember that CO alarms must be installed in the location specified by the manufacturer (e.g., wall, ceiling, etc.). They may be battery powered, hard wired, or a plug-in type.

If you have any questions on this issue, you may reach me at (609) 984-7609.

Source: Rob Austin
Code Assistance Unit

Conflict of Interest: A Reassurance and a "Heads-Up"

As Supervisor of Investigations, I receive complaints daily. The types of complaints coming across my desk range from technical to administrative allegations.

Over the past few years, I have noticed an increasing number of complaints that allege a violation of the conflict-of-interest provisions in the Uniform Construction Code, [*N.J.A.C. 5:23-4.5(j)1 and 2*]. It is alarming that our investigations are substantiating a good number of these complaints.

The Department of Community Affairs considers a conflict of interest violation a serious offense. The conflict-of-interest provisions apply equally to construction officials, subcode officials, and inspectors, full or part time, permanent or fill-in.

If you have not familiarized yourself with what constitutes a conflict of interest or the provisions governing violations, it is in your best interest to become familiar with them.

If you have any questions or think you might have a problem, please contact us before we contact you. Don't hesitate to call the Office of Regulatory Affairs at (609) 984-7672.

Source: Gerry Grayce
Office of Regulatory Affairs

Contractors' Registration Act Prohibits Issuance of Permits to Unregistered Contractors Not Otherwise Exempted

The "Contractors' Registration Act," (P.L. 2004, c. 16) was signed into law on May 13, 2004, with an effective date of December 31, 2005.

Under this law, any person who offers to perform, engages, or attempts to engage in the business of making or selling home improvements is required to register annually with the Division of Consumer Affairs under the New Jersey Department of Law and Public Safety, except if he comes within the scope of one of the following exemptions:

1. Any person required to register pursuant to "The New Home Warranty and Builders' Registration Act," P.L. 1977, c. 467 (*N.J.S.A. 46:3B-1, et seq.*);
2. Any person performing a home improvement upon a residential or noncommercial property he owns, or that a member of his family, a bona fide charity, or other nonprofit organization owns;
3. Any person regulated by the State as an architect, professional engineer, landscape architect, land surveyor, electrical contractor, master plumber, or any other person in any other related profession requiring registration, certification, or licensure by the State, who is acting within the scope of practice of his profession;
4. Any person who is employed by a community association or cooperative corporation;
5. Any public utility, as defined under *N.J.S.A. 48:2-13*;
6. Any person licensed by the New Jersey Department of Banking and Insurance under the provisions of Section 16 of the "Retail Installment Sales Act of 1960," P.L. 1960, c. 41 (*N.J.S.A. 17:16C-77*); or
7. Any home improvement retailer with a net worth of more than \$50,000,000, or employee of that retailer.

The definition of a "home improvement" is "the remodeling, altering, renovating, repairing, restoring, modernizing, moving, demolishing, or otherwise improving or modifying of the whole or any part of any residential or noncommercial property" and includes "insulation installation and the conversion of existing commercial structures into residential or noncommercial property."

Of particular significance to construction officials is Subsection 12.b of the new law, codified at *N.J.S.A. 56:8-147*, which provides that "no municipality shall issue a construction permit for any home improvement to any contractor who is not registered pursuant to the provisions

of this act." On or after December 31, 2005, it will be necessary for the construction official, before issuing any construction permit for a home improvement, to require the applicant to provide evidence of either (1) having a current registration issued by the Division of Consumer Affairs or (2) being in one of the exempt categories. The enforcing agency should retain this evidence as part of its permit documentation.

If you have any questions regarding this matter, please call me at (609) 292-7898.

Source: Michael Ticktin, Esq.
Chief, Legislative Analysis

Fire Alarm System Installers – License/Certification Requirements

Who can install a fire alarm system in a building?

1. A licensed fire alarm system installer, as per *N.J.S.A. 45:5A-25* (New Jersey Department of Law and Public Safety, Division of Consumer Affairs);
2. A certified fire protection system contractor, as per *N.J.A.C. 5:74* (Department of Community Affairs, Division of Fire Safety);
3. A licensed electrical contractor, as per *N.J.S.A. 45:5A* (New Jersey Department of Law and Public Safety, Division of Consumer Affairs).

You can reach the appropriate agencies at the following numbers:

- Division of Consumer Affairs
(800) 242-5846
(609) 989-6671
(973) 504-6200
- Division of Fire Safety
(609) 633-6070
(609) 633-6121
- Board of Examiners of Electrical Contractors
(973) 504-6410

If you have any questions on this issue, you may reach me at (609) 984-7609.

Source: Rob Austin
Code Assistance Unit

What, No Alarm?

When a fire protection system (e.g., sprinkler heads, horn-strobes, or smoke detectors) is undergoing maintenance, compliance with the following regulations is mandatory.

The Uniform Fire Code (UFC) (*N.J.A.C. 5:70*) at Section F-504.1, entitled "Protection Maintenance," states that the notification of the fire official is necessary before disconnection and interruption of the fire protection system, and upon the commencement and completion of tests, repairs, alterations, additions, or other such work. The fire officials shall be advised of the extent of and reason for such work, and the restoration of the fire protection system shall be diligently pursued.

Section F-502.0 of the UFC defines a fire protection system as devices, equipment, and systems utilized to detect a fire, activate an alarm, suppress or control a fire, or any combination thereof.

Be aware: The fire official also needs to be notified when a construction permit has been issued for all work stated.

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

Source: Suzanne Borek
Code Assistance Unit

Fire Protection Requirements for High-Piled Combustible Storage 

Confusion exists regarding the application of the 2000 International Building Code (IBC/2000) requirements for high-piled combustible storage.

Section 413.1 of the IBC/2000 requires high-piled stock or rack storage in any occupancy group to comply with the requirements of the 2000 International Fire Code (IFC/2000), regardless of the requirements set forth in Chapter 9 of the IBC/2000 for installation of fire protection systems. For example, a Group S-1 building of less than 12,000 square feet in area is not required to contain an automatic sprinkler system throughout the building as per Section 903.2.10 of the IBC/2000. If the building contains high-piled stock or rack storage, however, compliance with the IFC is required.

Section 2306.4 of the IFC/2000 requires the installation of an automatic sprinkler system when required by Section 2307, entitled "Solid-Piled and Shelf Storage,"

Section 2308, entitled "Rack Storage," and Section 2309, entitled "Automated Storage." Each of these sections refers to Table 2306.2, entitled "General Fire Protection and Life Safety Requirements." It is important to note that the second column in the table, entitled "Size of High-Piled Storage Area," is applicable to the area of the storage and **not** to the area of the building.

The key point to remember when dealing with high-piled stock or rack storage is that compliance with the IFC/2000 is required regardless of the area of the building.

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

Source: John N. Terry
Code Assistance Unit

Bonding of Hot Tubs 

Does your manufactured hot tub have a properly sized bonding conductor? If the bonding conductor is 8 AWG or larger, then your manufactured hot tub is properly installed. If the bonding conductor is smaller than 8 AWG, then the manufactured hot tub does not comply with Section 680.42(B) of the 2002 National Electrical Code (NEC/2002), the Electrical Subcode of the Uniform Construction Code.

How do you fix this, you ask? Replacing the noncompliant bonding conductor with one that meets Section 680.42(B) is necessary. In addition, a letter of approval from the manufacturer is required for acceptance of the modification (see NEC/2002, Section 110.2).

NOTE: Section 680.42(B) refers the hot tub installer to use the swimming pool bonding requirements in Section 680.26(B), hence the 8 AWG bonding conductor size.

The only exception to the above requirement is in Section 680.26(B)(4). This section states: "Metal parts of listed and labeled equipment incorporating an approved system of double insulation and providing a means for grounding internal non-accessible, non-current-carrying metal parts shall not be bonded." This exception requires a listed and labeled wiring method, serving as both the equipment grounding conductor and the bonding jumper, that meets the requirements of UL 1563. The motor associated with the wiring must also meet the double insulation requirements of UL 1081.

If you have any questions on this issue, you may reach me at (609) 984-7609.

Source: Rob Austin
Code Assistance Unit

Code Change Proposals for the Rehabilitation Subcode (N.J.A.C. 5:23-6)

Once again, it is time to submit code change proposals for the Rehabilitation Subcode. Code changes may be aimed at improving the Rehabilitation Subcode by recommending a requirement that is not currently there or addressing a requirement that seems unclear. Since its adoption in 1998, the Department of Community Affairs has encouraged code users to submit Rehabilitation Subcode code changes. This process, through which code changes based on the experience of the code users are presented and discussed, has been very successful.

To be considered this cycle, code changes must be submitted to the Department by February 11, 2005. The code change must be specific — the citation and the exact language change must be given. An explanation must be provided and any companion changes (other sections of the Rehabilitation Subcode that would also need to be changed) must be identified.

The code changes will be collated and presented to the Uniform Construction Code Advisory Board. A public hearing will be held at 9:30 a.m. on March 11, 2005 in Room 129 of the Department of Community Affairs at 101 South Broad Street in Trenton. The public hearing will give code change proponents a chance to present — and explain — their proposals to the members of the Board.

A code change proposal form is included in this edition of the *Construction Code Communicator* on page 16 for your convenience. If you have any questions about this process, please contact the Code Development Unit at (609) 984-7609.

Source: Emily W. Templeton
Code Development

Low-Voltage Lighting

Confusion exists as to what type of wiring method may be used for low-voltage lighting (both indoor and outdoor use). The purpose of this article is to highlight the requirements of the 2002 edition of the National Electrical Code (NEC/2002) that address this issue.

Low-voltage lighting systems require compliance with Article 411 of the NEC/2002, entitled “Lighting Systems Operating at 30 Volts or Less.” Section 411.3, entitled “Listing Required,” requires the listing of systems for their intended purpose; i.e., all components are required to be listed and labeled.

Underwriters Laboratories, Inc. (UL) has provided information on the type of marking required for all of the fittings for low-voltage lighting systems. These markings are as follows:

“DRY LOCATIONS ONLY”

OR

“SUITABLE FOR DAMP LOCATIONS”

OR

“SUITABLE FOR WET LOCATIONS”

According to UL, “Landscape Low-Voltage Lighting Systems,” wiring between the power unit, lighting units, and fittings shall be **SPT-3, Underground Low-Energy Circuit Cable**, or other wire that is sun resistant, and suitable for direct burial and wet locations. This provision ensures that the systems are suitable for use outdoors in accordance with specific installation instructions provided with the power unit and lighting units.

Section 411.4, “Locations Not Permitted,” prohibits installation of systems under the following conditions: (1) where concealed or extended through a building wall, unless a wiring method specified in Chapter 3, “Wiring Methods and Materials,” is used; or (2) within ten feet of pools, spas, fountains, or similar locations, except as permitted by Article 680, “Swimming Pools, Fountains, and Similar Installations.”

Chapter 3, “Wiring Methods and Materials,” includes but is not limited to nonmetallic, sheathed cable; armored cable; and metal-clad cable. Article 725, “Class 1, Class 2, and Class 3 Remote-Control, Signaling, and Power-Limited Circuits,” wiring methods are not applicable. Article 411 and Chapter 3 do not reference the methods found in Article 725; therefore, a Chapter 3 wiring method must be used for wiring when the system is concealed in or extending through building walls.

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

Source: Suzanne Borek
Code Assistance Unit

Manufactured Homes Installation and Assembly: Common Instances of Nonconformance

The unique design of the factory-built manufactured (mobile) home (MH) requires that the home be assembled and installed correctly. Equally important is that each home has a foundation and stabilization system properly designed by a New Jersey professional engineer or registered

architect. The system's design must be based on site-specific soil conditions, as well as the provisions contained in the manufacturer's installation instructions. The manufacturer's installation instructions must be approved by the third-party agency in compliance with the Federal MH Program.

Since installation and assembly is critical, the work performed at the site should be properly inspected and approved before the municipality issues a Certificate of Occupancy. The installation instructions should be filed with the local municipality at the time of construction permit application. An article in the Summer 2001 edition of the *Construction Code Communicator*, "Alert: Manufactured (HUD) Homes: Installation & Assembly," emphasized this point.

In many instances, MHs have been found to have been improperly installed and/or assembled. Below is a number of common examples of nonconformance:

Supports:

Spacing of the piers was not in accordance with the approved engineering drawings and specifications. In certain cases, the caps installed were not solid as indicated on the drawing. The marriage wall lacked the installation of supports. In many cases, the shims were improperly installed; for example:

- ▶ There was only one shim instead of a pair of shims.
- ▶ The size of the shims did not meet specifications listed in the manufacturer's installation instructions.

Anchors and Straps:

The approved drawings and specifications did not include the specifications for the anchors and straps (e.g., did not indicate a brand and/or model). Section 3280.306(f) of the Federal Manufactured Home Construction and Safety Standards (MHCSS) specifies a minimum working load of 3,125 lbs., and an ultimate load of 4,725 lbs.

The MHCSS also requires anchor certification. The building subcode official should ask for the anchor and strap manufacturer's product manual to verify the certifications before approving the plans.

In some cases, the manufacturer's instructions specify the installation of longitudinal straps at both ends of the units. If a variation(s) from the approved engineering drawings and specifications is necessary, the design drawings are to be revised and approved before any substitution is permitted in the field.

In a recent situation, the installed anchors were not the ones that were specified on the approved drawings and specifications. There was no approval for the anchors

installed at the site. To make matters worse, the installed anchors were not in accordance with the anchor manufacturer's instructions, thus creating unsafe conditions.

Bottom Board:

Penetrations made into the bottom board lacked seals that deny entry to rodents and that limit air infiltration. (Refer to Section 3280.305(g)5, Section 307(d), and Section 505(a) of the MHCSS and the manufacturer's installation instructions.) The only accepted repair for the bottom board is approved tape or adhesive. Duct tape is not a suitable material for patching or repair.

Floor Joist Assembly:

The floor joists of the two units in a double-wide home were not fastened properly. The fastener type, size, and spacing were not in accordance with the manufacturer's installation instructions.

Roof Assembly:

The roofs of the two units in a double-wide home were not fastened properly. Either the fastener size and spacing were not in accordance with the MH manufacturer's installation instructions, or they were not fastened at all. The erection and assembly of the hinged roof, including the vent installation, lacked an inspection.

Endwall Assembly:

The endwalls of the two units in a double-wide home were either fastened improperly or not fastened at all. For example, the fastener type, size, and spacing were not in accordance with the manufacturer's installation instructions.

Drain Line Support:

There was inadequate, or a complete lack of, support that was not in accordance with the MH manufacturer's instructions.

Crawl Space Ventilation:

There was inadequate ventilation that was not in accordance with the requirements for size and location per Sections R408.1 and R408.2 of the International Residential Code (IRC).

Crawl Space Access:

The crawl space access opening was not in accordance with Sections R408.3 of the IRC.

In case of any questions, please contact me at (609) 984-7974.

Source: Paul Sachdeva
Industrialized Buildings Unit
Bureau of Code Services

Modular Homes Built in Vocational/Technical Schools

In response to inquiries regarding buildings built in vocational/technical (vo-tech) schools, the Department of Community Affairs has developed the following policies and procedures:

- a) The local enforcing agency responsible for the area where the vo-tech school is located shall:
 1. Review and release the plans and specifications for the modular homes. A registered or licensed design professional will prepare the plans and specifications, in accordance with the applicable provisions of the Uniform Construction Code (UCC).
 2. Conduct necessary inspections of the modular homes during the manufacturing of the unit(s) to ensure conformance with the released plans and specifications.
 3. Issue a Certificate of Approval for the manufactured unit(s).
- b) The local enforcing agency responsible for the area where the unit(s) are/will be located shall:
 1. Review and release the plans and specifications for the foundation system and other site work required for installation and assembly of the unit(s). A registered or licensed design professional shall design the foundation system and other site work in accordance with all the applicable provisions of the UCC.
 2. Inspect the pre-manufactured unit(s) for any visible damage. Subcode officials and/or inspectors shall perform the necessary and required UCC inspections of the foundation system, installation and assembly of the unit(s), and shall also perform the required nondestructive tests.
 3. Issue a Certificate of Occupancy.

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

Source: Paul Sachdeva
Industrialized Buildings Unit
Bureau of Code Services

Oil Piping Depth

With the adoption of the 2000 edition of the International Mechanical Code (IMC/2000), the Department of Community Affairs has received questions pertaining to the proper depth of oil lines below grade.

The previous edition of the mechanical code had a section that stated the minimum depth of pipe installed underground to be 18 inches.

Section 1301.2 of the IMC/2000, entitled "Storage and Piping Systems," states that "Fuel-oil piping systems shall comply with the requirements of this code." Unfortunately, the IMC/2000 does not have any sections specifying the minimum depth of oil piping underground.

Since the adopted IMC subcode does not have any requirements for the installation of underground fuel-oil piping, it is recommended as a guidance to code officials that National Fire Protection Association (NFPA) 30, Section 3-7, entitled "Underground Piping," be used.

NFPA 30, Section 3-7 states the following: "[i]n areas subject to vehicle traffic, the trench shall be sufficient depth to permit a bedding of at least 6 inches of well-compacted backfill material, and shall be covered with at least 18 inches of well-compacted backfill material and pavement. In areas not subject to vehicle traffic, the piping shall be provided with a cover of at least 6 inches of well-compacted backfill material. A greater burial depth shall be provided when required by the manufacturer's installations or where frost conditions are present."

Therefore, since there is no code language in the IMC/2000 for oil piping depth, NFPA 30, Section 3-7 applies.

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

Source: Thomas C. Pitcherello
Code Assistance Unit

Peer Review is Overworked

That is right, the Peer Review committees are overworked because they have been meeting at an astounding rate. The Office of Regulatory Affairs has brought 33 licensed individuals before Peer Review in the last two years. This does not include an additional 36 individuals who have been forced to retire, or those who have received letters of warning or reprimand. Unfortunately, many of the infractions violate regulations that have existed for years.

Here are 12 examples of infractions and subsequent Peer Review recommendations:

1. While serving as a construction official, an individual carried out enforcement on eight different projects where he owned the property involved. In a split decision, Peer Review recommended the revocation of all of his licenses.
2. While acting as a building inspector, an individual sold building materials to a contractor who was working on a job site that was under the building inspector's jurisdiction. Peer Review recommended a 15-day suspension and a \$500 penalty.
3. While acting as a building subcode official, an individual ran a new home construction company in an adjacent municipality. Peer Review recommended revocation of all of the official's licenses.
4. While acting as an electrical subcode official for a third-party agency, an individual ran an electrical contracting company. Peer Review recommended revocation of all of the official's licenses.
5. While acting as a building inspector part time, an individual was a supervisor for a new home construction company in an adjacent municipality. Peer Review recommended revocation of all of the individual's licenses.
6. While acting as an electrical inspector part time, an individual falsified two inspections. Peer Review recommended revocation of all of the individual's licenses.
7. While acting as a plumbing subcode inspector, an individual signed 18 Plumbing Subcode Technical Sections indicating that he performed the inspections, when in actuality an unlicensed individual performed the inspections. Peer Review recommended revocation of all of the individual's licenses.
8. While acting as a construction official/building subcode official, an individual permitted the construction manager of a school project, who held a Uniform Construction Code license, to act as the building inspector and sign off on building inspections. Peer Review recommended revocation of all of the individual's licenses.
9. While acting as a construction official, an individual provided false information to the Department of Community Affairs' licensing section in support of his brother's licensing application. Peer Review recommended a ten-day suspension of all of the individual's licenses.

10. While acting as a construction official/building subcode official, an individual allowed his licenses to expire, but continued to perform inspections and other duties for three months with expired licenses. Peer Review recommended a \$500 penalty, and required the individual to repeat construction official and building subcode official courses.
11. An individual failed to obtain the proper Plumbing Subcode licenses before accepting the plumbing subcode position in a municipality. After he obtained the proper license, it was learned that he failed to disclose the revocation of his New Jersey Master Plumbers license. Peer Review recommended the revocation of all of this individual's licenses.
12. While acting as a community college instructor, an individual purposefully misrepresented student attendance in courses with minimum attendance requirements. Peer Review recommended the revocation of all of this individual's licenses.

These 12 examples are just a sample of the improprieties that have been committed by some officials. The Office of Regulatory Affairs has increased its staff, which allows us to conduct more detailed and thorough investigations.

Some of these acts of malfeasance are the result of ignorance. We ask you to please consider your actions carefully. If you are not sure what to do, give us a call first. We will resolve any ambiguities and we will provide counsel to ensure that the issues you face do not escalate into problems that could result in sanctions.

If you have any questions, please call the Office of Regulatory Affairs at (609) 984-7672.

Source: Louis Mraw
Office of Regulatory Affairs

Glow-in-the-Dark Exit Signs

A new, innovative product has come to light -- or has it? Companies are marketing photoluminescent exit signs that do not require electricity or the use of lamps. Do these exit signs meet code?

Section 1003.2.10.4 of the 2000 International Building Code (IBC/2000) states that exit signs shall be internally or externally illuminated and that the face of an exit sign, illuminated from an external source, shall have an intensity of no less than five foot-candles.

(continued from page 13)

Section 1003.2.10.5 of the IBC/2000 states that exit signs shall be illuminated at all times. This section also states that exit signs are to be connected to an emergency electrical system provided from storage batteries, unit equipment, or an on-site generator to ensure continued illumination for not less than 90 minutes in duration, in the event of primary power loss. The exception states that approved exit signs that provide continuous illumination independent of external power sources for no less than a 90-minute duration, in case of primary power loss, are not required to be connected to an emergency electrical system.

To obtain maximum illumination, the photoluminescent exit signs require exposure to a minimum of five foot-candles for at least an eight-hour duration; some require up to 24-hour durations. A constant, unfiltered fluorescent light with the intensity of five foot-candles must be present, 24 hours a day, seven days a week.

The question stands: do these types of exit signs meet the code? The answer is no. Officials cannot be expected to monitor buildings that intend to install these types of exit signs. They cannot ensure that the proper type and level of light are present at all times, nor can they gauge the light's exposure to the exit signs to guarantee that, when there is power loss, the signs will provide the illumination required.

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

Source: Suzanne Borek
Code Assistance Unit

Publication Inquiries

Have questions on Uniform Construction Code subscriptions? You can now reach the Publications Unit via e-mail.

The e-mail address is listed on the Division of Codes and Standards' web site. You may still reach the Publications Unit by phone.

- › e-mail: UCCpublications@dca.state.nj.us
- › web site: www.state.nj.us/dca/codes
- › telephone: (609) 984-0040

Source: Cecilia Heredia
Publications Unit

How Much is that Panel on the Roof?

The real question is how to calculate the fee for photovoltaic (PV) systems. The Electrical Subcode Technical Section, F120, has no specific line item for these types of systems.

How many panels do you charge for and where do they belong on the technical section? The panels themselves are not listed, only the number of arrays that the panels make up; e.g., if there are 32 solar panels that are one-foot square and they make two four-foot by four-foot arrays, the fee would be for two "Communication Points." The reason is that the panels are collecting the solar energy and conveying it to the inverters changing the voltage. The total number of inverters for these systems belongs on the technical section line for "Switches."

Disconnects for these systems are based on an ampacity rating and belong on the technical section line as "AMP Motor Control Center/Disconnect." The term "disconnect" after this line item indicates another form of system control.

The back-fed breaker, which indicates the total ampacity for the PV system, belongs on the technical section line as a "Subpanel;" however, if it is a stand-alone system, it belongs on the technical section as a "Service."

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

Source: Suzanne Borek
Code Assistance Unit

ALERT!

Recall of AFCIs

The United States Consumer Product Safety Commission (CPSC) is recalling about 700,000 Arc Fault Circuit Interrupters (AFCIs) manufactured after March 1, 2004 by Schneider Electric North America. Electrical distributors and retailers sold the AFCIs between March and September 2004.

The recalled units have a blue test button and the circuit breakers have one of the following date codes stamped in red on the breaker label: CD, DN, EN, FN, GN, HN, or JN. One of the following catalog numbers is printed on a label on the front of the breaker: QO115AFI, QO115AFIC, QO120AFI, QO120AFIC, QOB115AFI, QOB120AFI, HOM115AFI, HOM115AFIC, HOM120AFI, HOM120AFIC, QO115VHAFI, QO120VHAFI, QOB115VHAFI, or QOB120VHAFI.

As code officials, you are not responsible for enforcement of this recall. However, you may wish to alert the residents of your community of this recall as a service.

Concerned residents may obtain information by contacting Schneider Electric toll free at (877) 202-9046 or through the company's web site at www.us.squared.com/recalla/cj. Information is also available from the CPSC web site at www.cpsc.gov/cpsc/pub/prerel/prhtml05/05035.html.

Source: John N. Terry
Code Assistance Unit

Update on Revocation of Permits for Uncompleted Buildings

P.L. 2001, c. 457 allows a construction official to revoke a permit in most cases in which exterior and site work have not been completed within three years of the issuance of the permit or within three years of the effective date of the act, which was January 14, 2002, whichever is later. Thus, all owners of uncompleted buildings were given at least until January 14, 2005 to complete at least the exterior and site work. Since the statutory powers do not become operative until January 14, 2005, the implementation of the statute by rule must also be deferred until that date.

On August 26, 2004, Department of Community Affairs Commissioner Susan Bass Levin adopted an amendment to the Uniform Construction Code rules at *N.J.A.C. 5:23-2.16*, Construction Permits – Procedure, implementing P.L. 2001, c. 457. The amendment appeared in the October 4, 2004 issue of the *New Jersey Register*. However, it will not become operative until January 14, 2005 and West Publishing will not distribute it to code subscribers until that date.

Source: Michael L. Ticktin
Chief, Legislative Analysis

Safety Glazing

It has come to the attention of the Department of Community Affairs that Section R308.4 of the New Jersey edition of the 2000 International Residential Code (IRC/2000), entitled "Hazardous Locations," contains a misprint. Upon adoption of the IRC/2000 as the One- and Two-Family Dwelling Subcode of the Uniform Construction Code at *N.J.A.C. 5:23-3.21(c)3viii*, the Department deleted Item 9 in Section R308.4.

The Department has since discovered that, during the publication of IRC/2000, Item 9 was inadvertently retained

and renumbered as Item 10. This probably occurred as the result of an automatic computer action. Code users should strike Item 10 in its entirety from their code books to eliminate confusion.

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

Source: Jeff Applegate
Code Assistance Unit

Luminaires in Ductwork

Ultraviolet (UV) luminaires reduce the production of mold spores. Air-conditioning system designers have demonstrated that UV luminaires can control mold when installed in ductwork. Proper labeling and listing of mold-reducing equipment is necessary.

Article 110 of the 2002 edition of the National Electrical Code (NEC/2002), entitled "Requirements for Electrical Installations," and Section 110.3(B) of the NEC/2002, entitled "Installation and Use," state that technicians installing mold-reducing equipment must adhere to any listing or labeling instructions.

This means any luminaire installed in ductwork has to be listed and/or labeled for that specific use.

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

Source: Suzanne Borek
Code Assistance Unit

**NEW JERSEY DEPARTMENT OF COMMUNITY AFFAIRS
DIVISION OF CODES AND STANDARDS
CODE CHANGE PROPOSAL 2005
REHABILITATION SUBCODE (N.J.A.C. 5:23-6)**

Due: **February 11, 2005**

Proposals must be presented with language proposed for deletion in brackets [].

Proposals must be presented with language proposed for addition underlined _____.

Mail code change proposals to:
Code Development Unit
Department of Community Affairs
Division of Codes and Standards
Post Office Box 802
Trenton, New Jersey 08625

Fax code change proposals to:
Code Development Unit
(609) 984-7717 or
(609) 633-6729

Direct questions to the Code Development or Code Assistance Units at (609) 984-7609.

Section (citation) proposed for change: _____

Sections (companion changes) that might also need to be changed: _____

NAME: _____

ORGANIZATION (if any): _____

ADDRESS: _____

TELEPHONE: _____ FAX: _____ E-mail: _____

Proposed Code Change:

Supporting Statement (reason for code change):

NOTES

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Greetings from Acting Governor Richard J. Codey and Commissioner Susan Bass Levin

One fundamental principle of the New Jersey State Uniform Construction Code (UCC) is that New Jersey citizens are provided with safe and affordable housing and buildings. This is achieved through local code enforcement agencies working in partnership with design professionals, builders, and developers.

Three times per year, the Department of Community Affairs' (DCA) Division of Codes and Standards publishes the *Construction Code Communicator*. This newsletter provides subscribers -- both public and private -- with information on emerging construction issues. It also provides code officials with guidance on UCC administration and enforcement.

Through the *Construction Code Communicator* and all of our programs and services, we remain committed to providing safe and affordable housing and buildings to New Jersey citizens.

With regards,



Richard J. Codey
Acting Governor



Susan Bass Levin
Commissioner

Susan Bass Levin
Commissioner
NJ Department
of Community Affairs



Richard J. Codey
Acting Governor
State of New Jersey



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