

Construction Code Communicator



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James E. McGreevey, Governor

Department of Community Affairs
Susan Bass Levin, Commissioner

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The I-Codes Are Here!

The Department of Community Affairs adopted the 2000 editions of the International Building Code (IBC/2000) and the International Residential Code (IRC/2000) on May 5, 2003. The purpose of this article is to summarize the changes made by the State of New Jersey to these model codes. This article is not intended to provide an all-inclusive list of amendments, but merely a list of the “big-ticket” changes that are proposed by the Department.

IBC/2000

1. Occupancy Classification Clarifications (Chapter 3):

The Department is amending the published occupancy descriptions for Group I and Group R. These amendments reflect the New Jersey laws for rooming and boarding homes, hotels and multiple dwellings, and the Department of Health and Senior Services regulations for assisted-living facilities. Additionally, the amendments provide clarification on Group R-3 occupancies because the definition, as published in the IBC/2000, is not clear. The amended language provides clarity on the limited scope of this occupancy classification.

2. Height and Area Limitations: The Department is amending the allowable number of stories per the IBC/2000. The number of stories allowed will be consistent with the number of stories allowed by the 1996 edition of the Building

Officials and Code Administrators (BOCA) National Building Code.

3. Unlimited Area Buildings (Section 507): The IBC/2000 contains a provision for unsprinklered, unlimited-area buildings. This provision has been deleted upon adoption. The IBC/2000 also contains provisions for two-story, unlimited-area buildings. These provisions are limited to buildings of Type 1 or Type 2 construction.

4. Fire Wall Horizontal Continuity (Section 705.5): The IBC/2000 provides that fire walls must be continuous for a distance of four feet on either side where the firewall intersects with an exterior wall. This provision has been deleted and the BOCA/1996 requirement for a smoke-tight junction has been retained.

5. Elevator Lobbies (Section 707.14.1): The IBC/2000 contains requirements for elevator lobbies in occupancies that are required to have fire-resistance-rated corridors. In New Jersey, these requirements are limited to high-rise buildings that are required to have fire-resistance-rated corridors.

6. Fire Protection Systems:

A. Group I (Section 903.2.5) -- The fire sprinkler exception for day-care facilities with 100 or fewer children that have direct access to the exterior at grade is retained from BOCA/1996. However, this exception is NOT

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applicable to buildings of construction types IIIB and VB.

B. Group R (Section 903.2.8) -- The current exception from BOCA/1996 for two-story, Group R-2 buildings is retained.

C. Windowless Stories (Section 903.2.12.1) -- The current BOCA/1996 requirements for the suppression of windowless stories are retained.

D. Area Sprinkler Requirements (Section 903.2.16) -- A sprinkler threshold has been established for Groups B, F-2, and S-2. An automatic sprinkler system per Section 903.3.1.1, "NFPA 13 Sprinkler Systems," of the Building Subcode is required when the maximum area is exceeded for construction types IIB, IIIB, and VB.

E. Standpipe Installation (Section 905.2) -- The current requirements for standpipe system design from BOCA/1996 are retained.

F. Fire Department Connections (Section 906) -- The current requirements for Fire Department Connections (FDCs) from BOCA/1996 are retained because the IBC/2000 does not contain requirements for FDCs.

7. Horizontal Exits: The current requirements for horizontal exits are retained.

8. Structural Tests and Special Inspections: The Department has made a few changes to the IBC/2000 requirements for structural tests and special inspections. These are new concepts for construction code enforcement in New Jersey, and the provisions expand the quantity and types of special inspections required. The adopted amendments limit the application of these requirements to Class 1 buildings only.

9. Swimming Pool Barriers: The IBC/2000 inadequately addresses swimming pool protection. Therefore, the current requirements from BOCA/1996, as amended, are retained.

10. Referenced Standards: The 1999 editions of the National Fire Protection Association (NFPA) 13, 13R, 13D, and 20 are adopted in lieu of the 1996 editions of the NFPA standards, which are referenced in the IBC/2000. The 1996 editions of the NFPA standards are no longer in print.

IRC/2000

1. Stair Issues: The Department has amended the provisions for stairs in the IRC/2000 to retain the current

building code requirements. Examples of these amendments include provisions for stairway illumination, tread and riser dimensions for all residential stair types, handrail grip size, and ladder effect of guardrails.

2. Private Garage Separations: The Department has retained the BOCA/1996 requirements for fire-resistance ratings for private garages that are located under or adjacent to a living space.

3. Emergency Escape and Rescue: The Department has deleted the requirement contained in the IRC/2000 for emergency escape and rescue openings for all basements that contain habitable spaces. These openings will be required for sleeping rooms only.

4. Sprinkler Trade-Off for Dwelling Unit Separation: The Department has amended the section that allows a reduction in the fire-resistance rating for the installation of an automatic fire sprinkler system installed in accordance with NFPA 13. The adoption allows use of the reduced fire-resistance ratings when an NFPA 13, 13R, or 13D system is installed.

5. Presumptive Load Bearing Values of Soil: The Department has retained the load-bearing values for soil from the 1995 edition of the Council of American Building Officials One- and Two-Family Dwelling Code.

6. Waterproofing and Dampproofing for Foundations: The Department has retained the BOCA/1996 text for the requirements applicable to the waterproofing and dampproofing of foundation walls.

7. Chimney Clearance to Combustibles: The Department has retained the current BOCA/1996 requirements for clearance to combustible sheathing and trim.

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

Source: John N. Terry
Code Assistance Unit

Adoption of the NEC 2002

The proposal for the adoption of the 2002 edition of the National Electrical Code (NEC/2002) as the Electrical Subcode was published in the December 16, 2002 *New Jersey Register*. The adoption was published on May 5, 2003. The highlights of the New Jersey amendments to the NEC/2002 are as follows:

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Article 80, "Administration and Enforcement," is deleted because the Uniform Construction Code contains the administrative provisions for the enforcement of technical subcodes in New Jersey.

The requirement for the installation of Arc Fault Circuit Interrupters at Section 210.12(B), entitled "Arc-Fault Circuit-Interrupter Protection," is also deleted. These installations will remain optional in New Jersey.

In addition, Section 334.12(A)(1), "Uses Not Permitted," which prohibits the installation of romex (Types NM, NMC, and NMS) cable throughout multi-story buildings of construction types III, IV, and V, is deleted.

Another significant feature of this adoption is the introduction of metric units (also known as SI units) as the preferred measurement system for enforcement of the Electrical Subcode. The conversion from the inch-pound units to SI units is allowed to be used as an approximate conversion (also known as a hard conversion), except in limited cases as covered in Section 90.9(C), "Units of Measurement, Permitted Uses of Soft Conversion." Accordingly, at Section 300.4(a)(1), "Protection Against Physical Damage, Cables and Raceways Through Wood Members," the allowed distance from the edge of a hole on a nail plate to the nearest edge of a wood member has been changed from "1¼ inches (31.8 mm)" to "32 mm (1¼ inches)" to make it consistent with the standardized text of the NEC/2002. Numbers shown in either SI units or inch-pound units are considered compliant.

Code officials are advised to note the corrections contained in the errata to the NEC/2002, which are posted at the National Fire Protection Association web site at www.nfpa.org, and to remember the provision for the six-month grace period for subcode revisions, as set forth at *N.J.A.C. 5:23-1.6(a)*.

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

Source: Ashok Mehta
Code Assistance Unit

ALERT!

Aluminum Structures

"Patio rooms," "sunrooms," "three-seasons rooms," "four-seasons rooms," or "Florida rooms" — call them what you want, but we have found that these aluminum structures are collapsing at an alarming rate in New Jersey. Why? Because many of the manufacturers have not taken into consideration the snow drifting requirements contained in

Section 1608.7.1 of the 1996 Building Officials and Code Administrators (BOCA) National Building Code.

These structures are usually bolted to the rear wall of single-family dwellings. The roof of the aluminum structure is usually considerably lower than the roof of the main structure. That allows snow to build up and the structure eventually collapses.

There is a second problem. The Council of American Building Officials One- and Two-Family Dwelling Code and the 2000 International Residential Code (IRC), which have recently been adopted, do not contain provisions for drifting snow. To address this situation, the Department of Community Affairs will publish a Formal Technical Opinion (FTO). This FTO will contain the provisions from the 2003 IRC, which will have specific design criteria for aluminum structures. Until the FTO is published, all code officials should review these structures utilizing the provisions contained in the recently adopted 2000 International Building Code, Section 1608.7, "Drifts on Lower Roofs."

If you have any questions, please contact the Code Assistance Unit at (609) 984-7609 or the Office of Regulatory Affairs at (609) 984-7672.

Source: Lou Mraw
Office of Regulatory Affairs

Licensing of Autobody Repair Facilities

This article is to serve as a heads up for code officials in case you receive calls about the new licensing requirements for autobody repair facilities.

Recent statutory changes at *N.J.S.A. 39:13, Motor Vehicles – Repairs, Licensing, and Permits*, have established new licensing requirements for autobody repair facilities. For more information, anyone with questions may contact the New Jersey Department of Transportation, Division of Motor Vehicles (NJDOT DMV) at (609) 984-9632 or (609) 984-9631.

Please be advised, Uniform Construction Code officials do not have jurisdiction in this matter. This information is provided so that code officials may appropriately direct inquiries on autobody repair facility licensing requirements to NJDOT DMV.

Source: Yvonne Dawkins
NJDOT DMV

Highlights of the Differences Between IBC/2000 and BOCA/1996

The Department of Community Affairs adopted the 2000 edition of the International Building Code (IBC) on May 5, 2003 and many requirements of the 1996 Building Officials and Code Administrators National Building Code (BOCA) will change. The following chart highlights some of the new code requirements, illustrating primary differences between the IBC/2000 and BOCA/1996.

<p>Chapter 3 "Use and Occupancy Classification" (Refer to other articles in this issue of the <i>Construction Code Communicator</i> for additional information.)</p>	<p>Use Groups, which are now Groups per the IBC/2000, have been revised and new ones have been added. For example, upon adoption, restaurants and nightclubs are both considered Group A-2, churches have been added to Group A-3, and indoor arenas are classified as Group A-4.</p>
<p>Chapter 4 "Special Detailed Requirements Based on Use and Occupancy"</p>	<p>There are requirements for security grilles and doors in malls. A standby power and an emergency voice/alarm communication system are required in malls with an area greater than 50,000 square feet. Atrium walls and ceilings must meet a Class B interior finish. A carport must be open on two sides, or it is considered a garage.</p>
<p>Chapter 5 "General Building Heights and Areas"</p>	<p>The Height and Area Table is different than that provided in BOCA/1996. Larger buildings can be constructed under the IBC/2000. IBC/2000 tabular areas have been increased when compared to those found in BOCA/1996. Also, the IBC/2000 allows a larger area increase for sprinklers than BOCA/1996.</p>
<p>Chapter 6 "Types of Construction"</p>	<p>The Types of Construction have been revised. Type 1A per BOCA 1996 is deleted and Type 1B is now Type 1A in IBC/2000. Also, Type 2A is now Type 1B, Type 2B is Type 2A, and Type 2C is Type 2B. The remaining Types of Construction are the same.</p>
<p>Chapter 7 "Fire-Resistance-Rated Construction"</p>	<p>Minor technical changes have been made and the chapter has been reorganized. There are new requirements for an elevator lobby in certain instances.</p>
<p>Chapter 8 "Interior Finishes"</p>	<p>Textile ceiling finishes must conform to Class A of ASTM E84. Suspended acoustical ceilings must be installed per ASTM C635 and ASTM C636. Pyroxylin plastic is not permitted in Group A occupancies.</p>
<p>Chapter 9 "Fire Protection Systems"</p>	<p>An automatic sprinkler system is required in woodworking operations greater than 2,500 square feet or where finely divided combustible material is created. An automatic sprinkler system is required in a cellulose nitrate or pyroxylin plastic fabrication area. There are new requirements for the installation of sprinklers in repair garages. A secondary water supply is required for high-rise buildings in seismic areas. There is a standpipe requirement in non-sprinklered Group A buildings with more than 1,000 occupants. These buildings also require an emergency voice/alarm communication system. There are new requirements for Group F and Group M involving manual alarms.</p>
<p>Chapter 10 "Means of Egress"</p>	<p>A new requirement states that protruding objects cannot reduce the clear width of an accessible route. A new section contains requirements on special doors and grilles. A new section has been added that requires stairway doors to be operable from both sides without knowledge or effort; there are exceptions. There are new requirements for turnstiles. There are new requirements for corridor continuity. There is a new requirement for the separation of ventilation equipment that serves exit enclosures from other ventilation equipment.</p>
<p>Chapter 12 "Interior Environment"</p>	<p>There are only minor changes to this chapter.</p>
<p>Chapter 14 "Exterior Walls"</p>	<p>There are requirements for a vapor retarder on exterior walls. There are new requirements for fastening of wall coverings.</p>

<p>Chapter 15 "Roof Assemblies and Rooftop Structure"</p>	<p>There is a new requirement for at least schedule 40 plastic pipes for gutters and leaders except in Group R-3, private garages and Type V construction. There are requirements for metal-panel roof systems and ballasted, single-ply roof systems. Roof covering material must be labeled with the manufacturer's and approved testing agency's identifying information.</p>
<p>Chapter 16 "Structural Design"</p>	<p>Wind speed is measured differently in the IBC/2000. The wind speed contour line for 110 mph (BOCA/1996 wind speed – 90 mph) has moved inland slightly so that there is a wind speed increase for coastal communities. The seismic section has been revised and new terms have been implemented. The same letter designation has been used to define Seismic Design Categories and Site Coefficient. These are two distinct parameters for seismic design.</p>
<p>Chapter 17 "Structural Test and Special Inspections"</p>	<p>There are new layers of responsibility for structural tests and special inspections. For example, inspection of smoke control requires an acceptance test after installation; windows and doors must be tested in accordance with AAMA/NWWDA or ASTM E330. Contractors are required to submit a statement of responsibility that acknowledges they are aware of the special quality assurance requirements, that specifies quality control procedures, and that identifies the persons responsible for quality control, etc.</p>
<p>Chapter 18 "Soil and Foundations"</p>	<p>There are new requirements for seismic overturning movement of foundations. There are soil liquefaction requirements. There are requirements for pools located close to sloping soils. There are minimum requirements for the width of footings. There are new design requirements for pier foundations.</p>

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

Source: Marcel Iglesias
Code Assistance Unit

Carbon Monoxide Detectors in One- and Two-Family Dwellings

The requirement for the installation of Carbon Monoxide (CO) alarms in one- and two-family dwellings was adopted in the April 7, 2003 *New Jersey Register*. Please be advised, the six-month grace period does not apply to these regulations.

The six-month grace period does not apply because the requirement for installation of a CO alarm in accordance with the adopted regulations has no impact on the design of a home and may be addressed as an inspection item.

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

Source: Kristy Paolillo
Code Development

Did You Know the Division of Codes and Standards is on the World Wide Web?

The next time you are on the Web, be sure to surf to the Department of Community Affairs, Division of Codes and Standards web site. The Division's web site offers local construction offices and the general public a wide array of useful information and materials. From this web site you can:

- Find employment opportunities within the Division of Codes and Standards.
- Locate model codes adopted in New Jersey from 1975 to present.
- Comment on rule proposals via e-mail.
- Locate rule proposals and adoptions.
- Find information about the Carnival and Amusement Ride Safety Program.
- Locate a complete listing of working code officials (updated quarterly).

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- Locate a detailed listing of registered home builders in New Jersey.
- Print copies of the Uniform Construction Code (UCC) Construction Permit Application F100 and related UCC Standard Forms.
- Find information and print related applications for subcode and construction official license exams.
- Find seminar brochures and course dates, and e-mail your registration for continuing education seminars.
- Find information on how to order Division publications.

The Division's web site is updated on a regular basis, so be sure to add <http://www.state.nj.gov/dca/codes/> to your "favorites" menu.

If you have any questions, you may e-mail me at dyedwab@dca.state.nj.us.

Source: Dana M. Yedwab
Division of Codes and Standards

Commercial Kitchen Hood Fire Suppression System

With the adoption of the 2000 edition of the International Mechanical Code (IMC), a question has been raised on the requirements for the automatic shutdown of the fuel or electrical power supply to the cooking equipment when the hood fire extinguishing system is actuated. Previously, in the 1993 edition of the Building Officials and Code Administrators (BOCA) Mechanical Code, this code requirement was clearly stated in Section M-508.3.

In the IMC/2000, Section 509, "Fire Suppression Systems," reference is made to an approved automatic fire suppression system complying with the 2000 editions of the International Building Code (IBC) and the International Fire Code.

The IBC/2000, Section 904.11.2, "System Interconnection," clearly states the above requirement for automatic shutdown of the fuel or electrical power supply to the cooking equipment when the fire extinguishing system is actuated.

Please note, for projects approved prior to the adoption of the IBC/2000, the above requirements are referenced through the Uniform Construction Code to the 1996 editions of the BOCA National Building Code and the BOCA National Fire Prevention Code. BOCA/1996, Section

910, "Dry-Chemical Extinguishing Systems," and Section 914.0, "Wet-Chemical Range Hood Extinguishing Systems," make reference to National Fire Protection Association (NFPA) 17 and 17A standards. Both referenced NFPA standards have requirements for automatic shutdown of the fuel or electrical power supply to the cooking equipment when the fire extinguishing system is actuated.

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

Source: Thomas C. Pitcherello
Code Assistance Unit

ISO is Reevaluating New Jersey's Code Enforcement Offices

The Department of Community Affairs and the Insurance Services Office (ISO) met recently to discuss ISO's Building Code Effectiveness Grading Schedule (BCEGS) program. A primary topic of this meeting was the State-adopted building code.

One of the premises of the BCEGS program is to encourage the adoption of the latest edition of a model building code. This is accomplished in two ways. First, less than full score is assigned when the code being used is over five years old. Second, when the final score is being calculated, a factor is applied to the balance of the points available that further reduces the maximum possible score.

Recently, several jurisdictions throughout New Jersey have had reductions in their BCEGS classifications. These reductions occurred primarily because the building code in use in New Jersey is more than five years old. The reductions are not a reflection on local code enforcement efforts.

The International Building Code (IBC/2000) and International Residential Code (IRC/2000) have been adopted as the Building Subcode for the State of New Jersey in the spring of this year. Municipalities whose scores were reduced are now eligible for additional points in the BCEGS program.

Following the adoption of the IBC/2000 and IRC/2000, ISO will contact each municipality that received a reduced score. To determine whether there have been any significant changes in your code enforcement activity other than the change in the adopted building code, ISO will include a brief questionnaire. The questionnaire will ask whether there has been a change in local support for code enforcement. **Your municipality will be reclassified only**

if you answer the questions and return the questionnaire to ISO.

If you report that there have been some changes in code enforcement activity, or that there have been changes in the local support for code enforcement, ISO will contact the construction official and obtain additional information before recalculating your score and reclassifying your municipality. If you report that the code enforcement activity — and the support for code enforcement — remain substantially the same, ISO will recalculate your score and reclassify your municipality based on the information you previously provided, with credit given for the newly adopted Building Subcode. ISO will notify you of those results.

ISO wants to remind all municipalities that the BCEGS program is an advisory insurance underwriting information and rating tool. It is not intended to analyze all aspects of a comprehensive building code enforcement program. It is not for the purposes of determining compliance with any State or local law, nor is it for making loss prevention or loss safety recommendations.

If you would like to know more about this program, there is a web site that provides information about the BCEGS program. The web site also has information on a companion ISO program that evaluates community fire suppression capabilities. You may access this web site at www.isomitigation.com.

If you have any questions, please contact Lou Mraw at (609) 984-7672 or me at (609) 984-7609.

Source: Emily Templeton
Code Development

Guidelines for Building Enclosures in Flood-Prone Areas

Throughout New Jersey, there are many flood-prone areas. Some of these are “V” zones, which are areas where the floodwaters move at a rate of moderate to fast velocity and occur at the oceanfront. Others are “A” zones, where the floodwaters rise and fall with some horizontal movements, and are located near lakes, rivers, and the bayfront. When constructing buildings in these areas, certain factors need to be considered for the building’s enclosures.

In a V zone, buildings that have enclosures below the Base Flood Elevation (BFE) are required to be constructed so that the enclosure would break away during a flood and allow the moving water to pass through the enclosure.

Buildings that have enclosures below the BFE in an A zone need to be constructed with vents to allow the water to enter and leave, thus eliminating differential hydrostatic pressures on the building’s walls. Examples of enclosures allowed in A zones include vehicle parking areas and garages, storage rooms, and building access enclosures. Enclosures that are not allowed are living areas such as bedrooms, dining rooms, living rooms, family rooms, and service uses. Also, installation of mechanical equipment below the BFE is prohibited.

It has been indicated that there are cases where enclosures constructed below the BFE in A zones have not been provided with the required water equalization vents as required by the Building Subcode. In order to receive coverage under the Federal Flood Insurance Program at the standard rate, homeowners would need to identify the enclosures, and bring them into compliance with the hydrostatic venting requirements of the Building Subcode and the Federal standard 44CFR60.3(c)(5). Please be advised these requirements provide that a design must be certified by a registered professional engineer or registered architect. Otherwise, the enclosure may be designed using the following minimum criteria:

A minimum of not less than two openings with a combined net area of not less than one square inch for every square foot of area subject to flooding are required; and vents may be equipped with screens, louvers, valves, or other coverings or devices, provided that they allow for the automatic entry and exit of floodwaters.

Please note, in entry foyers not separated from the living area by doors, the use of vents is neither advisable nor practical. Such areas are difficult to heat or cool and they are subject to insect infestation because insect screening will block the flow of water with debris. It is advised that, in newly constructed houses, the entryway or foyer floors be elevated to the level required by the Local Flood Damage Prevention Ordinance.

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

Source: Jeffrey Applegate
Code Assistance Unit

What Residential (Use) Group R Means in New Jersey

The 1996 edition of the Building Officials and Code Administrators (BOCA) National Building Code had Residential Use Groups R-1, R-2, R-3, and R-4. The adoption of the International Building Code (IBC) and International Residential Code (IRC), both 2000 editions, has five groups, which include the new designation, Group R-5.

Group R-5 is exclusively an IRC building. All other Group R buildings are constructed according to the provisions of the IBC.

BOCA/1996	IBC/2000
R-1 — Residential; hotels, motels, boarding homes, etc. (BOCA)	R-1 — Residential; hotels, motels, boarding homes, etc. (IBC)
R-2 — Residential; multiple family, dormitories, etc. (BOCA)	R-2 — Residential; multiple family, dormitories, etc. (IBC)
R-3 — Residential; 1 and 2 family, and multiple single family, 5 residents or less each (BOCA)	R-3 — Residential; 1 and 2 family, and adult/child care, 5 residents or less each (IBC)
R-4 — Residential; detached 1- and 2-family dwellings, 2 story max (CABO)	R-4 — Residential; therapeutic residences for 6-16 occupants (IBC)
	R-5 — Residential; detached 1- and 2-family dwellings, 3 story max (IRC)

New Jersey’s amended IBC Section 310, Residential Group R, now reads like this:

R-1 Residential occupancies where the occupants are primarily transient (less than 30 days) including: *Hotels (including motels) having transient occupancy, rooming houses with more than five residents having transient occupancy.*

R-2 Residential occupancies containing more than two dwelling units where the occupants are primarily permanent, including: *Apartment houses, convents, dormitories, fraternity and sorority houses, monasteries, rooming houses with more than five residents not having transient occupancy, therapeutic residences with more than 16 residents.*

R-3 Detached one- and two-family dwellings greater than three stories in height, multiple single-family

townhouses greater than three stories in height, and attached two-family dwellings separated from adjacent units by firewalls including: *Single residential occupancies accessory to a dwelling unit having no more than five roomers or lodgers (single occupancies, accessory to a dwelling unit, having more than five roomers or lodgers shall be classified as Group R-2 or I-1, as appropriate), adult and child day-care facilities accessory to a dwelling unit serving five or fewer persons of any age for less than 24 hours, rooming houses with five or fewer residents, therapeutic residences with five or fewer residents.*

R-4 Therapeutic residences including more than five but not more than 16 occupants, excluding staff, capable of prompt evacuation as defined by Section 22-1.3 of NFPA 101-97, referenced in Chapter 35. *Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided in the code.*

R-5 Detached one- and two-family dwellings not more than three stories in height, and multiple single-family townhouses not more than three stories in height, designed and constructed in accordance with the IRC.

With the retention of *N.J.A.C. 5:23-3.21(b)* during this interim period, the existing code requirements applicable to the height and area of such buildings shall continue to apply. Specifically, the basic tabular area and the increases allowed for open perimeter, sprinklers, or construction type shall apply. In addition, a third story of living space shall be allowed, provided it meets the habitable attic requirements.

Source: Rob Austin
Code Assistance Unit

What . . . More (Use) Groups?

The 2000 edition of the International Building Code (IBC/2000) has more (Use) Group classifications than the 1996 edition of the Building Officials and Code Administrators National Building Code (BOCA/1996). Most of these differences appear in the IBC/2000 Hazardous Group H and Institutional Group I. (There are separate articles in this issue of the *Construction Code Communicator* on Assembly Group A and Residential Group R.)

Group H in the IBC/2000 is very similar to Use Group H in BOCA/1996. However, BOCA/1996 classifies Hazardous Production Materials (HPM) Facilities in Chapter 4, “Special Use and Occupancy,” Section 416, “HPM Facilities.” IBC/2000 classifies HPM Facilities as an additional Group, according to Chapter 4, “Special Detailed

Requirements Based on Use and Occupancy,” Section 415.9, “Group H-5.”

Group I in the IBC/2000 also includes a new group, Group I-4, which pertains to day-care facilities. Per the IBC/2000, day-care facilities provide supervision, personal care services, and accommodations on less than a 24-hour basis for six or more persons of any age. If you recall, BOCA/1996 dealt with day-care facilities as Use Group I-2 and Use Group E for children, but never assigned a use group to facilities for adult care.

The following chart provides a simple comparison of the two codes.

BOCA/1996	IBC/2000
H-1 — High Hazard; detonation hazard	H-1 — High Hazard; detonation hazard
H-2 — High Hazard; deflagration hazard	H-2 — High Hazard; deflagration hazard
H-3 — High Hazard; combustion or physical hazard	H-3 — High Hazard; combustion or physical hazard
H-4 — High Hazard; health hazard	H-4 — High Hazard; health hazard
	H-5 — High Hazard; hazardous production materials (HPM)
I-1 — Institutional; supervised residential homes for 6 or more occupants	I-1 — Institutional; supervised residential homes for 6 or more occupants
I-2 — Institutional; medical, nursing care, etc. for 6 or more occupants	I-2 — Institutional; medical, nursing care, etc. for 6 or more occupants
I-3 — Institutional; jails, reformatories, asylums, etc. for 6 or more occupants	I-3 — Institutional; jails, reformatories, asylums, etc. for 6 or more occupants
	I-4 — Institutional; day care for 6 or more occupants

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

Source: Rob Austin
Code Assistance Unit

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ISO and Training

It has come to our attention that some municipalities are receiving less than they may be eligible for regarding the questions on training that are included on the questionnaire for the Building Code Effectiveness Grading Schedule (BCEGS) used by the Insurance Services Office (ISO) in its evaluation of local code enforcement efforts.

The questionnaire allows for full credit to be given for up to 96 hours of training per year. This seems like a lot — 12 days of training each year. Although not everyone is expected to meet that criterion, you should know that ISO regards training in a broader scope than simply the required courses for license renewal. In addition to the training courses for license renewal, organized discussions about code issues also count as training.

ISO divides training into four distinct areas with specific contact hour criteria for each.

- a) Administration** – (12 hours) Training in administration means receiving education in the internal workings of a building department including permit processing and tracking, budgeting and staffing, supervising and managing, and public service issues.
- b) Legal** – (12 hours) Legal training includes education in the aspects of code enforcement that are affected by, or that pertain to, the legal rights, obligations, liabilities, or immunities of code enforcement staff, building owners, and contractors.
- c) Mentoring** – (12 hours) Mentoring means providing one-on-one education in code enforcement. A common means of mentoring is where a senior field inspector rides along with a junior field inspector to provide construction site instruction on specific issues and conditions to be addressed when performing inspections.
- d) Technical** – (60 hours) Technical training is education in those aspects of code enforcement that relate to interpreting and enforcing specific technical requirements in adopted codes and standards.

A classroom setting is not the only way to achieve ISO's credit for training. The BCEGS program can credit weekly staff meetings that devote time to education, a technical session that is part of a professional association meeting, courses taken via computer, or education through videotapes.

When deciding whether meetings count as training, it is helpful to have a record of the meeting, people who attended, date, time, and issues discussed (the agenda). Although some credit may be given for meetings that are not recorded, full credit can be given when records are

available. The records may be in a log format and do not have to be lengthy.

The ISO has information available on its web site, www.isomitigation.com. If you have further questions on the ISO process, please contact Lou Mraw at (609) 984-7672 or me at (609) 984-7609.

Source: Emily W. Templeton
Code Development

Locking Means of Egress Doors Under Special Conditions in Hospitals, Nursing Homes, and Assisted-Living Facilities

In New Jersey, the construction of hospitals and other medical facilities is regulated by two standards: the 2000 edition of the International Building Code (IBC/2000) as mandated by the New Jersey Uniform Construction Code and the 2000 edition of the National Fire Protection Association Life Safety Code 101 (NFPA 101/2000) as mandated by the Health Care Finance Administration, a branch of the United States Department of Health and Human Services.

For years, the Building Officials and Code Administrator's National Building Code (BOCA) and the other national model codes have sparsely addressed the special needs and safety requirements particular to health-care occupancies. For this reason, the Health Care Finance Administration, which administers the Medicare/Medicaid reimbursement program for the federal government, has mandated the implementation of life safety requirements from NFPA 101 for all medical facilities.

In general, the requirements for means of egress set forth in both IBC/2000 and NFPA 101/2000 are very similar. However, recognizing the unique requirements of health-care facilities and the danger to certain patients posed by free access to, from, and through a health-care facility, NFPA 101/2000 allows for egress doors to be locked where the clinical needs of patients require specialized security measures for their safety, whereas IBC/2000 does not. Locking of egress doors is allowed per NFPA 101/2000 with the recognition that health-care facilities are fully sprinklered, staffed at all times, and compartmentalized to allow for the protection of patients within a facility without evacuation.

The following sections of NFPA 101/2000 provide requirements for the locking of egress doors:

7-5.2.1, Staff Availability, Exception #1 – Allows exit access in health-care occupancies to pass through

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Permits for Lead Hazard Abatement Work

INFORMATION REQUIRED FOR A LEAD PERMIT

Since January 1, 1996, the Lead Hazard Evaluation and Abatement Code (*N.J.A.C. 5:17*) has required that a permit be obtained under the Uniform Construction Code (UCC) for any work intended to abate lead hazards. (Please note: lead abatement projects involving superstructures and commercial buildings are exempt from this requirement.) Unfortunately, permits are still being issued without all of the information that is required by the UCC.

There are two subsections in Subchapter 2 of the UCC – specifically *N.J.A.C. 5:23-2.15(a)7i-v* and *N.J.A.C. 5:23-2.15(b)4i-iii* – that list exactly what is required when a lead contractor or owner-occupant of a single-family dwelling applies for a lead hazard abatement permit. Construction officials must ensure that applicants submit all of the information that is required by these subsections.

CLOSING OUT A LEAD PERMIT

As a reminder, in order to close out a lead hazard abatement permit, a Certificate of Clearance is issued (not a Certificate of Occupancy or a Certificate of Approval). The requirements for issuance of a Certificate of Clearance can be found at *N.J.A.C. 5:23-2.23(o)1-5*.

A Certificate of Clearance is required on all lead hazard abatement-permitted projects, except when the work is being performed by an owner-occupant of a single-family dwelling, provided the lead abatement is not an order from the local health department. If an owner-occupant of a single-family dwelling is performing his own lead abatement, and if it was not mandated by the local health department, the owner may apply for a Certificate of Clearance. However, a Certificate of Clearance is not required under the UCC for projects by owner-occupants of single-family homes.

Finally, a lead abatement Certificate of Clearance shall not be issued on a project that has been ordered by a local health department until approval of the health department has been given.

There are a few different scenarios, so if you come across a scenario in which you are not sure what is required, please call us at (609) 633-6224.

Source: Jim Amici
Bureau of Code Services

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rooms or spaces subject to locking, as provided in Chapters 12 and 13 of NFPA 101/2000.

18-1.1.1.5, General Requirements – Allows the authority having jurisdiction to determine the appropriate modifications to those sections of the code that require means of egress to be kept unlocked if patient safety and security warrants locking.

18-2.2.2.2, Means of Egress Requirements, Doors, Exception #2 – Allows locking of patient room doors where the clinical needs of the patients require security. Staff must carry keys at all times.

18-2.2.2.4, Exception #1 – Allows locking of means of egress doors in security areas (operating room suites, labor and delivery suites, nurseries, psychiatric units, Alzheimer's units, dementia units, etc.). Staff must carry keys at all times.

18-2.2.2.5 – Requires remote release and duplicate keying of locks in all units where means of egress doors are locked.

The above-noted sections have been used by the Health Care Plan Review Unit at both the Department of Community Affairs (DCA) and the Department of Health and Senior Services (DHSS) for the past 28 years to review health-care projects that include patient units with restricted egress. When this is allowed, staff in the unit must carry keys to the locked doors at all times. In addition, the requirements of Section 1003.3.1.8.2 of IBC/2000, Special Locking Arrangements, are also applied, except for the delayed-release provision. Therefore, locking devices on egress doors must be releasable from a central, remote location and the doors must unlock upon activation of the fire alarm system or the sprinkler system, or upon loss of power to the egress control device.

Permission to lock specific egress doors must be approved through a variation by the DCA's Bureau of Construction Project Review, Health Care Plan Review Unit.

Again, these locking arrangements are used in hospitals, psychiatric facilities, nursing homes, and assisted-living facilities throughout the State and throughout the country to provide the proper level of security for Alzheimer's units, dementia units, psychiatric units, operating suites, critical-care units, and labor/delivery/nursery areas, without which these units could not properly function.

Source: David B. Uhaze, RA
Chief
Bureau of Construction Project Review

Manufactured Housing – Permanent Foundation Guide

In the Winter 2002 *Construction Code Communicator*, the article entitled, “Manufactured Homes: Permanent Foundations,” made reference to a publication issued by the United States Department of Housing and Urban Development entitled, “Permanent Foundations Guide for Manufactured Housing.” Since then, the Department of Community Affairs has received several inquiries on how this guide may be obtained.

If you would like to view the publication, go to www.hudclips.org and click on “Library.” Then, highlight “Guidebooks” and click on “Search.” You will be prompted to enter either a word or phrase, or a document number. Enter the document number “4930.3G,” and you will be able to view and download the guide.

Source: Paul Sachdeva
Bureau of Code Services

Date: February 18, 2003
Adoption: 35 *N.J.R.* 1055(a)
Summary: This adopted amendment to *N.J.A.C.* 5:23-12.12, entitled “Special Safety Equipment,” requires a sign at the top and bottom landings of each escalator to state that standing escalators are not to be used as a building stair.

Date: April 7, 2003
Adoption: 35 *N.J.R.* 1558(c)
Summary: These adopted amendments to *N.J.A.C.* 5:23-3.20, 6.4, 6.5, 6.6, 6.7, 6.21A, 6.25A, 6.26A, 6.27, 6.31 and *N.J.A.C.* 5:70-1.5, 2.1, 2.3, 2.9, 4.19 require the installation of carbon monoxide alarms in new and existing one- and two-family dwellings. Buildings without fuel-burning appliances or attached garages are not subject to this requirement.

Source: Megan K. Sullivan
Code Development

New Jersey Register Adoptions

Date: December 2, 2002
Adoption: 34 *N.J.R.* 4195(a)
Summary: These adopted amendments make an administrative correction in the Barrier-Free Subcode at *N.J.A.C.* 5:23-7.5, entitled “Residential Buildings Other Than Use Group R-1,” to reconcile the rule text as adopted effective November 4, 2002 with the rule text as adopted effective August 5, 2002. In addition, these adopted amendments correct a typographical error at *N.J.A.C.* 5:23-7.5(b).

Date: December 16, 2002
Adoption: 34 *N.J.R.* 4428(a)
Summary: This adopted amendment deletes the requirement for only pressure-assisted (not gravity-flow) water closets in commercial buildings.

Date: January 6, 2003
Adoption: 35 *N.J.R.* 219(c)
Summary: This adopted amendment to *N.J.A.C.* 5:23-12.12, entitled “Special Safety Equipment,” corrects a typographical error in a cross-reference (changing “204.4c” to “204.4e”).

Date: February 18, 2003
Adoption: 35 *N.J.R.* 1054(b)
Summary: This adopted amendment to *N.J.A.C.* 5:23-9.6, entitled “Construction Requirements for New and Existing Casinos,” extends the height allowance for casino slot machines up to 75 inches where certain conditions are met.

Farewell to Ashok

After 13 years of answering electrical questions in the Code Assistance Unit, Ashok Mehta has left the Department of Community Affairs to move forward in his career at the Department of Health and Senior Services. We congratulate him on his achievements, though the Code Assistance Unit will not cease to remember with great affection and gratitude his unfailing polite manner, reliability, and depth of knowledge in the electrical field. We thank Ashok for his exceptional contributions to the Unit and wish him the best in his future. He will surely be missed!

Source: Code Assistance Staff

Operation Alert

It has been brought to the attention of the Department of Community Affairs that some inspectors are requiring verification of the operation of equipment before issuing either a Certificate of Approval or Certificate of Occupancy. Please be advised that the Uniform Construction Code (UCC) deals mainly with the *installation* requirements for equipment and not requirements for the *operation* of equipment. Therefore, code officials are required to ensure that equipment is installed in a manner that is compliant with the UCC. Unless specifically required otherwise by the applicable subcode or adopted standard, code officials are not responsible for equipment operation.

For example, Section 918.10 of the 1996 edition of the Building Officials and Code Administrators National Building Code, the Building Subcode, requires that fire alarm

Nightclubs vs. Restaurants

Those who have been in construction code enforcement for more than a year or two have been asked the question of whether a specific space should be considered a nightclub or a restaurant. With the adoption of the 2000 edition of the International Building Code (IBC), this question is no longer an issue. The appropriate classification of both a nightclub and a restaurant is now Group A-2.

Along with this change, there are several other changes to the Group A occupancy classification. As stated above, Group A-2 includes nightclubs and restaurants; however, it will now also include banquet halls, taverns, and bars.

Group A-3 remains the “general assembly” group and applies to assembly uses intended for worship, recreation, or amusement. It will also now include churches and indoor swimming pools without spectator seating.

Group A-4 has been added, and applies to assembly uses intended for viewing indoor events and activities with spectator seating. This would include arenas, skating rinks, swimming pools, and tennis courts. Again, this applies only when these functions include spectator seating. Without spectator seating available, these occupancies would be classified as Group A-3.

Please note that Groups A-1 and A-5 remain the same, applying to theaters and outdoor assembly.

Hopefully, this summary will save some time when enforcing the IBC 2000. Should you have any questions regarding this article or any other IBC-related issue, please call the Code Assistance Unit at (609) 984-7609.

Source: John N. Terry
Code Assistance Unit

Phone Number Change – Lead/Asbestos Unit

Please be advised, the telephone number for the Lead/Asbestos Unit at the Department of Community Affairs has recently been changed to (609) 633-6224. The phone number provided in the Winter 2002 edition of the *Construction Code Communicator* in the article entitled “Prohibited Paint Removal Methods” is no longer valid.

Source: Kristy Paolillo
Code Development

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systems be subjected to a 100 percent acceptance test in accordance with the 1993 edition of the National Fire Protection Association 72 standard. Similarly, Section 700-4(a) of the 1999 edition of the National Electrical Code (NEC/1999), Electrical Subcode, entitled “Tests and Maintenance,” requires that the test for a complete emergency electrical system be conducted or witnessed upon installation. In such cases, it would be a violation of the UCC if the equipment installed does not operate in accordance with the applicable code or standard. However, it is not the intent of the UCC to regulate the operation of appliances.

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

Source: Ashok K. Mehta
Code Assistance Unit

Rob is a New Addition to Our Unit

The Department of Community Affairs, Division of Codes and Standards introduces Robert Austin, the newest member of the Code Assistance Unit. Rob joined the Department in 2001 as a recent graduate of The College of New Jersey with a Bachelor’s degree in Mechanical Engineering. Since then, he has proved to be a valuable asset to the Department, demonstrating reliability through his work with the members of the Unit, and his responsiveness to the inquiries of local officials and those in the construction industry. Rob has been closely involved in the adoption of the 2000 editions of the International Building Code and International Residential Code, and updates to the new energy code regulations. He has successfully completed the Fundamentals of Engineering examination and will soon be working toward his Professional Engineer license.

Source: Code Assistance Staff

Underwriters Laboratory Standard UL 94  

Recently, William Connolly, Director of the Division of Codes and Standards, sent the following letter to all New Jersey construction officials in response to the fire at the “Station” nightclub in Rhode Island. This letter is reprinted here for all readers of the *Construction Code Communicator*.

March 7, 2003

Dear Construction Official:

The tragic event at the “Station” nightclub in Rhode Island has again placed the construction code enforcement industry on the front page. As you may know, the unusually rapid spread of this fire was due to the use of unrated foam packaging material as an interior finish. The purpose of this letter is to inform you of the findings of the Department of Community Affairs regarding the documentation of the flame spread of interior finishes.

There are some foam products on the market that advertise that they comply with the Underwriters Laboratory Standard UL 94. The title of this standard is “Tests for Flammability of Plastic Material for Parts in Devices and Appliances”. This standard clearly states “these requirements do not cover foamed plastics for use as materials for building construction or finishing.” UL 94 is not scoped for the testing of building materials and products tested using UL 94 should not be accepted as complying with the interior finish requirements of the code.

Only material that has been tested in accordance with ASTM E84, the Test Method for Surface Burning Characteristics of Building Materials, and that complies with the interior finish requirements of the Building Subcode or the Rehabilitation Subcode may be installed in buildings in New Jersey. Code officials ensure compliance with this standard by requiring design professionals or building owners to submit documentation on the specific product to be used.

Should you have any questions regarding the ASTM E84 standard or any product’s compliance with this standard, please contact the Code Assistance Unit at (609) 984-7609.

Sincerely,

William M. Connolly
Director
Division of Codes and Standards

Employment Opportunities on the Web

Find the latest employment opportunities within the Division of Codes and Standards by visiting the Division’s web site, or point your browser to: <http://www.nj.gov/dca/codes/employment/employmentopportunities.htm>.

This site provides a list of available positions within the Bureau of Construction Project Review, the Office of Local Code Enforcement, and the Office of Regulatory Affairs. Applicants are encouraged to file applications electronically. The Employment Opportunities Web page is updated on a regular basis, so be sure to add the URL to your browser’s “favorites” menu.

Source: Dana Yedwab
Division of Codes and Standards

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James E. McGreevey
Governor



Susan Bass Levin
Commissioner

Electrical Subcode Officials, We Need Your Help!

The Department of Community Affairs is seeking information as to whether any municipality has a utility performing installations under *N.J.A.C. 5:23-2.18A*, which contains provisions for the Utility Load Management Device Installation Program. If so, and if there is current action, please e-mail me at raustin@dca.state.nj.us, with the subject line reading "load management." You may also reach me at (609) 984-7609.

Source: Rob Austin
Code Assistance Unit

Energy Code - Residential Basement Wall Insulation Trade-Off

QUESTION: The Energy Subcode (*N.J.A.C. 5:23-3.18*) allows high-efficiency heating equipment to be utilized in place of basement wall insulation. How does this trade-off work while using the *REScheck* software?

BACKGROUND: *N.J.A.C. 5:23-3.18(b)1ii* allows for the exemption of insulation in basements of residential buildings provided that high-efficiency equipment is used. The high-efficiency equipment/basement insulation trade-off requires that *all* mechanical equipment installed throughout a residential building meet or exceed the minimum high-efficiency standards (90 percent AFUE for furnaces, 85 percent AFUE for boilers, and 8.0 HSPF for an air source heat pump).

Note: *N.J.A.C. 5:23-3.18(b)1ii* states that a high-efficiency boiler is rated at 85 percent AFUE or greater. *N.J.A.C. 5:23-3.18(b)4i* refers to Table 502.2.1a; Note 4 of this Table states that a high-efficiency boiler is 86 percent AFUE or greater. The correct rating is 85 percent. This change was published in the June 2, 2003 *New Jersey Register* as an administrative correction.

ANSWER: The *REScheck* (formerly known as *MECcheck*) software has to be "tricked" to allow the high-efficiency equipment/basement insulation trade-off. When entering area measurements of the proposed residential building, omit the area for a basement and do not include any mechanical equipment. The basement area to be excluded includes the slab, basement walls, and basement ceiling (first floor assembly). The excluded mechanical equipment defaults the software to the equivalent of a minimum AFUE and/or HSPF value.

For example, the only information entered into the software would be walls above grade, glazing, doors and ceiling(s), and a comment on the

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REScheck Compliance Certificate indicating that high-efficiency equipment will be provided, eliminating the basement insulation requirement.

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

Source: Rob Austin
Code Assistance Unit

New Jersey Register Adoptions

Date: April 21, 2003
Adoption: 35 *N.J.R.* 1663(b)
Summary: These adopted amendments to *N.J.A.C.* 5:23-2.6, 3.2, and 6.31 clarify the applicability of the change of use provisions for special amusement buildings, including temporary haunted houses, and provide standards for the issuance of variations for special amusement buildings.

Date: May 5, 2003
Adoption: 35 *N.J.R.* 1939(c)
Summary: These adopted amendments to *N.J.A.C.* 5:23-2.14, 2.15, 2.18, 2.20, 3.14, 3.16, 3.21, and 12.12 adopt the 2000 edition of the International Building Code (IBC/2000), the 2000 edition of the International Residential Code (IRC/2000), and the 2002 edition of the National Electrical Code (NEC/2002) as the Building, One- and Two-Family Dwelling, and Electrical Subcodes of the Uniform Construction Code (UCC).

Date: May 19, 2003
Adoption: 35 *N.J.R.* 2203(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-1.4, 2.15, 2.16, 2.18, 2.21, 2.23, 2.24, 2.30, and 9.2 address several different code enforcement issues as follows: the role of plans and plan review in the code enforcement process, the design details that must be submitted with a permit application for a building relying on truss construction, the required elements of a framing inspection, the submittal of calculations to demonstrate compliance with the Energy Subcode, and a requirement for foundation location surveys.

Date: May 19, 2003
Adoption: 35 *N.J.R.* 2207(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-2.32 and 5:23A-2.1 enable construction officials to act

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Bathtub Traps/Slab Openings

The Department of Community Affairs has received telephone calls pertaining to the requirements for the proper closure of the boxed-out concrete slab opening underneath bathtubs. This opening is provided for the installation of the bathtub trap below. The question is, "Must the boxed-out concrete slab opening below the bathtub be filled in?"

N.J.A.C. 5:23-3.14, the Building Subcode, Section 1806.2.1, "Floors," and *N.J.A.C.* 5:23-3.21, One- and Two-Family Dwelling Subcode, Section R506.2.3, "Vapor Retarder," require that an approved vapor retarder be placed between the concrete floor slab and the base course, or the prepared subgrade where no base course exists. The building inspector must verify proper installation of the approved vapor retarder before the slab is poured.

The approved vapor retarder must still be intact below the installed trap and slab opening. This is the primary factor in determining whether the vapor retarder is code compliant. If the vapor retarder has been removed, punctured, or damaged, it must be repaired or replaced in the boxed-out area as required. The Building Subcode and the One- and Two-Family Dwelling Subcode are silent on the concrete slab opening, except in radon-prone areas.

Use Group R in radon-prone areas in a Tier 1 municipality [*N.J.A.C.* 5:23-10, Radon Hazard Subcode, Section 5:23-10.4(b)6] would require the opening to be "substantially sealed."

The concrete slab opening below the bathtub may be filled in. However, after researching this matter, it has been determined that it is common practice in the industry not to fill in the opening so as to provide access to the trap for future repair or replacement.

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

Source: Thomas C. Pitcherello
Code Assistance Unit

BUILDING SAFETY CONFERENCE OF NEW JERSEY 2003

The good weather was with the code enforcement community as we made our way to Bally's Park Place in Atlantic City for the 22nd Building Safety Conference of New Jersey. The annual conference increases public awareness of the life-safety services provided within New Jersey's municipalities. A wide variety of educational opportunities were offered to the participants to help them remain up to date with today's technology. The conference attracted over 600 people.

The awards luncheon was held in the new Traymore Ballroom. William Connolly, Director of the Division of Codes and Standards, along with the presidents or representatives of each association, presented awards to individuals for their outstanding achievements in their fields. The award recipients included the following:

John Scialla, Building Inspector, Saddle River Borough and Washington Township in Bergen County

Robert K. Rogers, Jr., Electrical Inspector, Guttenberg Town in Hudson County and Hackensack City, Hasbrouck Heights Borough, Little Ferry Borough, and Ridgefield Borough in Bergen County

John Leonardis, Fire Protection Inspector, Kearny Town in Hudson County

Jerry Tolomeo, Plumbing Inspector, Little Falls Township in Passaic County

Lynn Mizer, Technical Assistant, Millstone Township in Monmouth County

An additional attraction at the conference this year was the sale of the New Jersey editions of the 2000 International Building Code and the 2000 International Residential Code. Other activities included the 8th Annual Golf Outing, crackerbarrel round table discussions with 34 different topics, 22 seminar selections for continuing education credits, an awards reception, association meetings, and a spouse program. William Spiezio from the Township of Nutley in Essex County was selected as the inspector to receive a complimentary registration to the 2004 Building Safety Conference.

Throughout the conference, we were able to interact and enjoy learning and laughter with friends and acquaintances. We hope you will be able to join us next year for new educational opportunities. We will meet at Bally's Park Place on April 28-30, 2004. Mark your calendars. We hope to see you there!

Source: Susan H. McLaughlin
Bureau of Code Services



From left to right, Jerry Tolomeo, Plumbing Inspector; Robert K. Rogers, Jr., Electrical Inspector; Lynn Mizer, Technical Assistant; John Leonardis, Fire Protection Inspector; John Scialla, Building Inspector

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expeditiously when buildings present an actual and immediate hazard to building occupants and other members of the public. In addition, these adopted amendments make it clear that demolition is within the scope of the emergency work that may be undertaken by construction officials. Finally, these adopted amendments establish that emergency orders issued by construction officials are appealable only to a court of competent jurisdiction.

Date: May 19, 2003
Adoption: 35 *N.J.R.* 2208(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-4.3A modify the enforcing agency classifications of the UCC. These amendments are necessary as a result of the adoption of the IBC/2000.

Date: May 19, 2003
Adoption: 35 *N.J.R.* 2208(b)
Summary: The adopted amendment at *N.J.A.C.* 5:23-4.3A makes an administrative correction to reference the appropriate section for the definition of households of low or moderate income.

Date: May 19, 2003
Adoption: 35 *N.J.R.* 2209(a)
Summary: These adopted amendments to the Rehabilitation Subcode update cross-references to the IBC/2000, the IRC/2000, the 2000 edition of the International Mechanical Code, the 2000 edition of the International Fuel Gas Code, the NEC/2002, and the 1998 edition of the International Code Council/American National Standards Institute A117.1 standard for accessible design and construction. In addition, the adopted amendments delete terms in the UCC that are obsolete.

Date: June 2, 2003
Adoption: 35 *N.J.R.* 2494(b)
Summary: This adopted amendment at *N.J.A.C.* 5:23-3.18(b)4i makes an administrative correction to the Energy Subcode of the UCC to include a companion change at Note 4 in Table 502.2.1a that defines a high energy efficiency boiler as 85 percent AFUE.

Date: June 16, 2003
Adoption: 35 *N.J.R.* 2637(c)
Summary: These adopted amendments to *N.J.A.C.* 5:23-3.4 and 3.16 incorporate into the UCC rules a statutory requirement for automatic rain sensor devices for new lawn sprinkler systems, and assign inspection responsibility for these devices to electrical subcode officials.

Date: June 16, 2003
Adoption: 35 *N.J.R.* 2639(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-4.19 increase the UCC permit surcharge fee from

\$0.0019 per cubic foot or \$0.96 per \$1,000 of the value of construction to \$0.00265 per cubic foot or \$1.35 per \$1,000 of the value of construction, respectively.

Source: Megan K. Sullivan
 Code Development Unit

Correction to Division of Codes and Standards' Web Address

Please be advised, the web address provided in the article entitled "Did You Know the Division of Codes and Standards is on the World Wide Web?" which appeared in the Spring 2003 edition of the *Construction Code Communicator* is incorrect. The correct web address is <http://www.state.nj.us/dca/codes/>.

Source: Dana M. Yedwab
 Division of Codes and Standards

DCA Seeks Clarification on Local Penalty Enforcement

In 1999, the New Jersey Legislature adopted a new Penalty Enforcement Law, P.L. 1999, c. 274, which is codified at *N.J.S.A.* 2A:58-10. This new law made a distinction between those penalty cases in which the underlying facts have already been adjudicated and those in which they have not. Thus, where the agency is a State agency and there has been an opportunity for a hearing before an administrative law judge, the new law eliminates the need for a court hearing and allows the agency to have a final order entered upon the Superior Court docket. In other cases, *where there has been no prior administrative adjudication*, a court hearing must be conducted and testimony taken.

The problem here is that P.L. 1999, c. 274 does not specifically deal with a case where there is a prior adjudication, but it is before a county or municipal construction board of appeals, rather than before an administrative law judge. The reality is that, when a local enforcing agency seeks to enforce a penalty after having given an opportunity for an administrative hearing before the construction board of appeals, the situation is no different from that of the Department of Community Affairs when *it* issues a penalty after having provided an opportunity for an administrative hearing. However, the expedited docketing procedure is only available by statute to the Department.

Therefore, it would seem contrary to the clear intent of the new Penalty Enforcement Law for a local enforcing agency to have to spend time and money to retry the underlying facts when it sues to enforce a penalty.

Nonetheless, some municipal courts are now requiring full factual hearings in these cases.

The Division of Codes and Standards has therefore written to the Administrative Director of the Courts to ask that the Supreme Court consider adoption of an amendment to the Rules of Court that would provide that, in any case where there is a statutory right of appeal to an administrative tribunal, the court shall not hear testimony on any issue that was subject to adjudication by such administrative tribunal, except in the context of an appeal from the decision of that tribunal. If such an amendment to the Rules of Court were to be adopted, it would make it unnecessary to change the statute, since the Supreme Court, and not the Legislature, has final authority in establishing court procedures.

In the meantime, if a local enforcing agency encounters any problems with its municipal court, the agency or its attorney should contact me at (609) 292-7899.

Source: Michael L. Ticktin
Chief, Legislative Analysis

Elevator Lobbies Are Back! 

For those of you who enforced the 1984 Building Officials and Code Administrators Basic Building Code, you may remember (if you still have your memory) elevator lobbies. Well, they are back. This time, however, the scope of elevator lobbies is very limited.

Section 707.14.1 of the 2000 edition of the International Building Code (IBC/2000) requires elevator lobbies for elevators that open into fire-resistance-rated corridors in buildings having occupied floors greater than 75 feet above the lowest level of fire department access. Table 1004.3.2.1 of the IBC/2000 establishes the need for a fire-resistance-rated corridor based upon occupancy, occupant load, and the existence of a sprinkler system.

Simply stated, high-rise buildings that have rated corridors are required to have elevator lobbies. As you know, all newly constructed high-rise buildings are provided with a sprinkler system; therefore, only high-rise buildings occupied by Groups H-1, H-2, H-3, H-4, H-5, R, I-1, and I-3 are required to have elevator lobbies because they are the only occupancies that have a fire-resistance-rated corridor.

Should you have any questions on this issue, please feel free to contact me at (609) 984-7609.

Source: John N. Terry
Code Assistance Unit

Haunted House Regulations Revised!

On April 21, 2003, the Department of Community Affairs adopted new rules regarding Special Amusement Buildings. The amendments to *N.J.A.C. 5:23-2.6*, "Change of Use;" 3.2, "Matters Covered; Exceptions;" and 6.31, "Change of Use" clearly provide that the construction official has enforcement responsibility for the temporary or permanent use of an existing structure as a "Special Amusement Building." The special amusement is required to comply with the change-of-use provisions of the Rehabilitation Subcode. It should be noted that this includes the temporary change of use of a Commercial Farm Building to a Special Amusement Building.

If these types of uses are occurring in your municipality, you should refer to *N.J.A.C. 5:23-6.31(a)5x* for the scoping requirements and the 2000 edition of the International Building Code, Section 411, Special Amusement Buildings, for the technical requirements.

Happy Halloween to all.

Source: John Terry
Code Assistance Unit

Kiosks -- Do They Comply? 

The Department of Community Affairs has recently been made aware of several covered mall buildings that contain noncompliant kiosks. A covered mall is susceptible to specific hazards simply by the nature of its occupancy, and failure to require compliance with the code provisions for kiosks further compounds these hazards. Therefore, compliance with these code requirements is imperative. This article is intended to summarize such requirements.

Temporary or permanent kiosks are required to be constructed in accordance with the New Jersey edition of the International Building Code (IBC/2000), Section 402.10. The requirements contained in this section are the same as those set forth in Section 402.14 of the 1996 edition of the Building Officials and Code Administrators National Building Code.

Kiosks must be constructed either of noncombustible materials or of fire-retardant-treated wood. Additionally, they are required to be provided with approved fire suppression and detection. This means at least one sprinkler head is required to be dropped from the ceiling to protect a covered kiosk.

Sizing and spacing requirements for kiosks are being violated most frequently. Please be advised, IBC/2000 contains very specific requirements. The maximum

Bonding Metal Gas Piping

QUESTION: How is it possible to bond a metal gas piping system without converting it to a grounding electrode?

BACKGROUND: The 2002 edition of the National Electrical Code (NEC/2002), Section 250.104(B), "Bonding of Piping Systems and Exposed Structural Steel," and the 2000 edition of the International Fuel Gas Code (IFGC/2000), Section 309.2, "Connections," provide that the above-ground portions of a metal gas piping system upstream from the equipment shut-off valve must be electrically continuous and bonded to the grounding electrode system. In addition, NEC/2002, Section 250.52(B), "Electrodes Not Permitted for Grounding," and IFGC/2000, Section 309.1, "Grounding," clearly prohibit the use of the underground portion of a metal gas pipe as a grounding electrode.

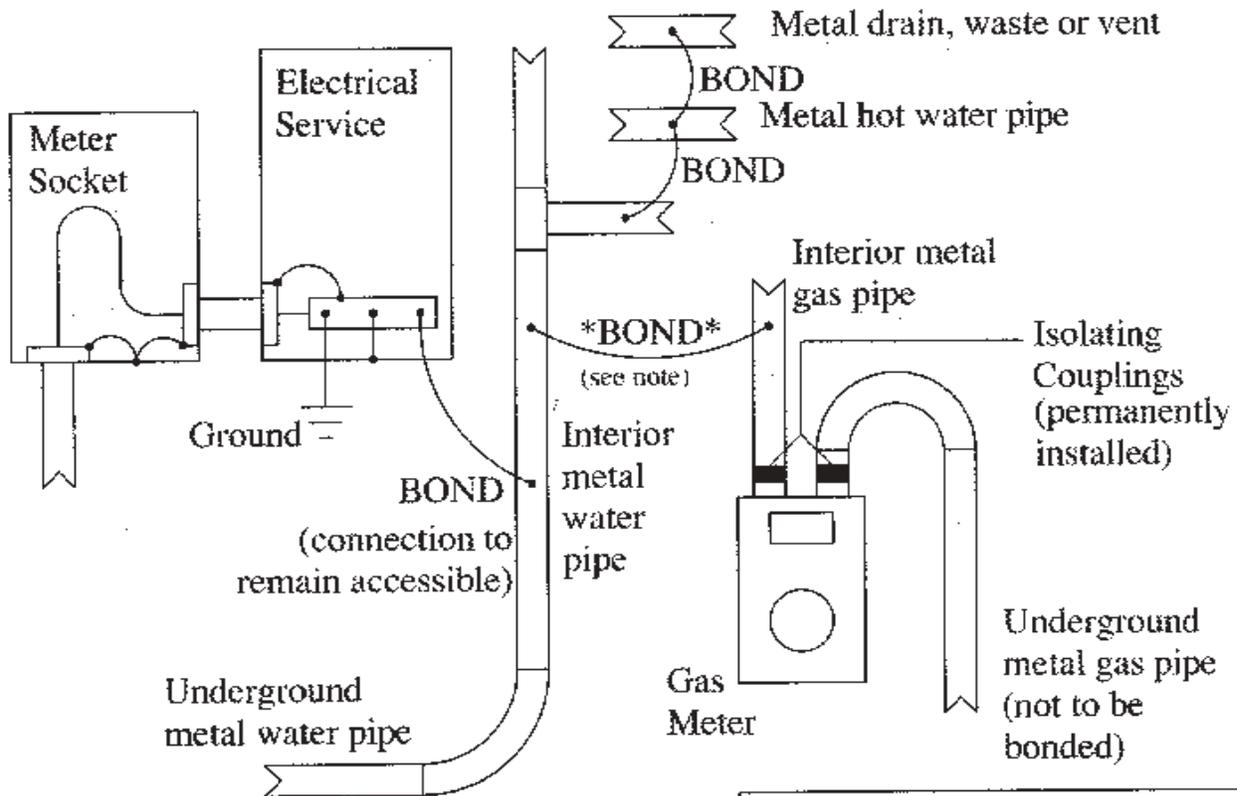
ANSWER: Permanently installed isolating bushings or couplings may be used to bond a metal gas piping system without converting it to a grounding electrode. Also, electrical equipment served by an electrical circuit containing an equipment-grounding conductor that adequately grounds an appliance would be considered the gas pipe bond. (See figure below.)

For sizing of conductors, refer to NEC/2002, Section 250.122, "Size of Equipment Grounding Conductors," and Table 250.122, "Minimum Size Equipment Grounding Conductors for Grounding Raceway and Equipment."

EXAMPLE: A fuel gas pipe supplying *only* a water heater without an electrical connection must be bonded. However, bonding a fuel gas pipe supplying a water heater and any electrical appliance is not required because the equipment grounding conductor of the electrical appliance serves as the bond for the gas piping system.

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

Source: Rob Austin
Code Assistance Unit



NOTE If the gas equipment has an electrical circuit with an equipment grounding conductor, the bond between the interior pipes is considered optional

TITLE: Bonding Metal Gas Piping

DATE: Summer/Fall 2003

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area of a kiosk is 300 square feet and they must be placed so that they are a minimum of 20 feet from other structures within the mall, including other kiosks.

Concerning permits, permanent kiosks require construction permits; temporary kiosks require Type 1 fire permits [N.J.A.C. 5:70-2.7(a)3iv].

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

Source: John Terry
Code Assistance Unit

LP Gas Inspections – Temporary Installations

The Department of Community Affairs has been made aware that some local code officials are not performing inspections of temporary liquefied petroleum (LP) gas installations of 2,000 gallons aggregate water capacity or less. Please be advised, it is the responsibility of the local plumbing inspector to perform these inspections.

A temporary installation is one that is in place for less than 180 days. A “Plumbing Technical Section Application” is required for the installation of a vapor delivery system utilizing containers with an aggregate water capacity of 2,000 gallons or less. A plumbing inspection by the local plumbing inspector is also required.

The confusion may have arisen because a “Notice of LP Gas Installation” form must be submitted to the Department’s Division of Codes and Standards, Bureau of Code Services, LP Gas Unit for any temporary LP gas vapor delivery system with an aggregate water capacity of 251 gallons or more. However, only LP gas systems utilizing containers with an aggregate water capacity over 2,000 gallons and all liquid transfers are subject to plan review and inspection by the Bureau.

All LP gas vapor delivery installations of 2,000 gallons or less aggregate water capacity are required to be filed for a permit and have inspections performed by the local municipal inspectors. (Note that this is not necessarily the total gallonage of propane per site. Tank and piping arrangements that are not interconnected are regarded as separate systems.)

The following are some items that must be inspected for a temporary LP gas installation:

1. The location and vehicular protection of the tank(s) outside the building
2. The proper label for the tank(s) for the intended use

3. The proper supports under the tank(s)
4. The proper shutoff valves and piping materials
5. The proper protection of the piping from the tank(s) to the piece of equipment or appliance in the building
6. The proper gas pressure regulators
7. The labeled equipment or appliance for the intended use
8. The rain cap over the pressure relief valve and inclusion of a dome cover on top of the propane tank
9. The LP gas supplier’s name and emergency telephone number on the propane tank

The full requirements for these installations can be found in the National Fire Protection Association No. 58 – 1998 edition. Any piping must meet the requirements of the 2000 edition of the International Fuel Gas Code.

It is very important that all temporary LP gas vapor delivery installations with a water capacity of 2,000 gallons or less be inspected by the local inspectors for code compliance.

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

Source: Thomas C. Pitcherello
Code Assistance Unit

New Forms Mirror New Rules . . . However, UCCARS Does Not

Administrative rule changes, which went into effect on May 19, 2003, coupled with a number of changes in field practices and experiences, have caused the Department of Community Affairs to revisit several of the Uniform Construction Code (UCC) standard forms recently. Notice of Imminent Hazard, Notice of Unsafe Structure, Notice of Violation and Order to Terminate, and Notice and Order of Penalty, which were formerly addressed by two dual-purpose forms (UCC F-240 and UCC F-210, respectively), are now addressed separately, each with its own form.

At the same time, the Stop Construction Order, though not directly affected by any particular rule change, was also modified in order to better align it with changing practices and with the four forms mentioned above.

In addition, and as a result of the May 19th rule changes concerning certificate requirements, the Application for Certificate standard form was amended as well.

Adopted Rule to Extend Deadlines for Licensees Called to Active Duty

The Department of Community Affairs recognizes that, in conditions of war or other national emergency, situations may arise in which individuals who are called up for military service are unable, for that reason, to complete continuing education requirements, or other licensing or certification requirements, in a timely manner.

Accordingly, a rule has been adopted that was effective upon publication in the July 21, 2003 issue of the *New Jersey Register* providing that any deadline for compliance with any licensing or certification requirement that cannot be met because the individual is serving on active duty in the armed forces of the United States, or of a state, shall be extended until 60 days following the return of the individual from active duty, or such further time as may be necessary to allow a reasonable opportunity for compliance with the licensing or certification requirement. Existing licenses or certifications would be extended accordingly.

Source: Michael L. Ticktin
Chief, Legislative Analysis

(continued from page 7)

And finally, a handful of minor changes were made to the Certificate itself and to the Order to Vacate placard as well. However, no substantive change in the way these two forms are used need result.

Six of the eight new or modified forms are outputs of the Uniform Construction Code Administrative Records System (UCCARS). While the UCC standard forms themselves have been modified accordingly, and camera-ready art has already been provided to each municipal construction code enforcement office for the printing of such forms, due to the impending release of *PermitsNJ*, the UCCARS software has *not* been modified to incorporate the updated text on those six forms. In some instances, you may continue to use UCCARS to produce a Notice or an Order, but in others, it is not advisable. When you may or may not use UCCARS will depend upon the Notice or Order to be issued and the specific circumstances of each case. Refer to the following guidelines before issuing any of them.

Notice of Imminent Hazard Administrative rule changes concerning both the method by which a construction official may eliminate an actual and immediate danger, and the way in which the property owner must appeal the Notice of Imminent Hazard were the driving force in separating this

Notice from its former partner, the Notice of Unsafe Structure. Thus, in the case of an imminent hazard, *the newly revised form must be used*.

Notice of Unsafe Structure Notwithstanding its separation from the Notice of Imminent Hazard, there are only two substantive changes to the Notice of Unsafe Structure, i.e., the addition of the Qualification Code and the addition of a place to indicate the Order was issued to a party other than an owner or owner's agent/contractor. Of the two, only the latter *requires* the use of the newly revised form, but even then, *only* if the party against whom the Order is being issued is *not* the owner or the owner's agent/contractor.

Notice of Violation and Order to Terminate Aside from the Notice being separated from the Notice and Order of Penalty, the only changes are the addition of the Qualification Code and the addition of a place to indicate the Order was issued to a party other than an owner or owner's agent/contractor. Of the two, only the latter *requires* the use of the newly revised form, but even then, *only* if the party against whom the Order is being issued is *not* the owner or the owner's agent/contractor.

Notice and Order of Penalty Again, aside from the Notice being separated out to a form of its own, of the four changes made to the language of UCC F-210 pertinent to the Notice and Order of Penalty, i.e., the addition of the Qualification Code, the clearer delineation of the circumstances for which the penalty was assessed, the check boxes to indicate daily or weekly penalties, and the addition of a place to indicate the Order was issued to a party other than an owner or owner's agent/contractor, only the last *requires* the use of the newly revised form, but even then, *only* if the party against whom the Order is being issued is *not* the owner or the owner's agent/contractor.

Stop Construction Order Of the four changes made to UCC F-250, i.e., the addition of the Qualification Code, the ability to indicate by discipline the work to be stopped, the addition of text warning that a certificate will not be issued until any penalties issued have been paid, and the addition of a place to indicate the Order was issued to a party other than an owner or owner's agent/contractor, again, only the last *requires* the use of the newly revised form, but even then, *only* if the party against whom the Order is being issued is *not* the owner or the owner's agent/contractor.

Application for Certificate The changes to this form are substantive and come as a result of amendments to the administrative rules; therefore, the newly revised UCC F-270 must be used. However, as the certificate application is *not* an output of UCCARS, from the UCCARS perspective, it is a non-issue.

Certificate Since there were only two simple changes made to UCC F-260 (the addition of a place for "Qualification Code" following "Block" and "Lot" under Identification, and deletion of the word "Occupant" after the phrase "Owner in Fee"), construction code enforcement offices may continue to produce Certificates from UCCARS.

Order to Vacate UCC F-245 is *not* an output of UCCARS. Therefore, in terms of UCCARS use, it too is a non-issue.

In conclusion, when producing:

- A Notice of Imminent Hazard -- *DO NOT* use the old, dual-purpose "Unsafe/Imminent Hazard" print violation notice feature of UCCARS.
- A Notice of Unsafe Structure -- if the intended recipient *is* the owner or the owner's agent/contractor, then you may use the old, dual-purpose "Unsafe/Imminent Hazard" print violation notice feature of UCCARS, if you so choose.
- A Notice of Violation and Order to Terminate -- if the intended recipient *is* the owner or the owner's agent/contractor, then you may continue to use the old, dual-purpose "Violation/Penalty Notice" print violation notice feature of UCCARS, if you so choose.
- A Notice and Order of Penalty -- if the intended recipient *is* the owner or the owner's agent/contractor, then you may continue to use the old, dual-purpose "Violation/Penalty Notice" print violation notice feature of UCCARS, if you so choose.
- A Stop Construction Order -- if the intended recipient *is* the owner or the owner's agent/contractor, then you may continue to use the old "Stop Construction Order" print violation notice feature of UCCARS, again, if you so choose.
- A Certificate -- you may continue to print this form from UCCARS.

If you have any questions, you may reach me at (609) 292-7899.

Source: Berit Osworth
Division of Codes and Standards

Rehabilitation Subcode

The Office of Regulatory Affairs continues to receive complaints from contractors, design professionals, and code officials who are enforcing new construction provisions on work in existing buildings, thereby illegally ignoring the Rehabilitation Subcode (*N.J.A.C. 5:23-6*). These complaints have been so pervasive that the presidents of each of the inspectors' associations have asked me to write this warning.

The Rehabilitation Subcode, which was adopted in 1998, as you all know, has won awards throughout the nation, and has been recognized as one of the most innovative and logical approaches in dealing with the rehabilitation of existing structures.

If you have a personal disagreement with a section or sections of the Subcode, your recourse as a code official is to submit a code change proposal to the Department of Community Affairs, which holds a hearing in March each year.

You do not have the authority to disregard a section of the Rehabilitation Subcode and substitute requirements which pertain to new construction, or create your own version of the Subcode. Acts of this nature will give rise to disciplinary actions before your peers.

Source: Louis J. Mraw
Supervisor
Office of Regulatory Affairs

Radon Gas Collection

It has been brought to the attention of the Department of Community Affairs that the regulations for radon construction techniques are being misinterpreted. Please be advised, there are two methods in which *N.J.A.C. 5:23-10*, the Radon Hazard Subcode, provides for the collection of radon gas from underneath slabs in new home construction.

The first method, as set forth at *N.J.A.C. 5:23-10.4(b)3*, requires that an interior foundation pipe drain be installed in the subslab aggregate below the basement slab and be connected to the vent pipe through the roof. The connection to the vent pipe may be directly to the vent pipe or may be to a sump pit that is connected to the vent pipe (*N.J.A.C. 5:23-10.4(b)8*). However, *N.J.A.C. 5:23-3.14*, the Building Subcode, provides for the installation of exterior foundation drains in new construction with basements for subsoil drainage, which may be connected to a sump pit in the building's basement. These drains, which are placed outside of the foundation walls, will not collect radon gas from beneath a basement slab. In such instances, the underslab area must be vented using the second method, which is described below.

The second method is to be used only if the first method is not used, or for slab on grade designs. *N.J.A.C. 5:23-10.4(b)4* provides for the installation of one vent pipe with a tee fitting in the subslab aggregate for every 1,500 square feet of subslab area.

Both of these methods allow for the collection of the radon gas from beneath the building's slab and its transmission up through the vent pipe to the exterior. The primary purpose is to collect the radon gas that accumulates in the aggregate course below the slab and conduct it to the exterior with the independent vent stack pipe.

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

Source: Jeffrey Applegate
Code Assistance Unit

Wind

The wind maps in the newly adopted 2000 editions of the International Building Code (IBC/2000) and International Residential Code (IRC/2000) are significantly different than the wind map provided in the 1996 edition of the Building Officials and Code Administrators National Building Code (BOCA/1996), and the 1995 edition of the Council of American Building Officials (CABO) One- and Two-Family Dwelling Code (CABO/1995).

The method used to measure wind speed has changed. In BOCA/1996 and CABO/1995, wind speed is measured according to the fastest mile; whereas, in the IBC/2000 and IRC/2000, wind speed was measured according to a three-second gust. Table 1609.3.1 of the IBC/2000 and Table R301.2.1.3 of the IRC/2000, which are entitled "Equivalent Basic Wind Speeds," provide a wind-speed conversion for the two distinct methods for measuring wind speed.

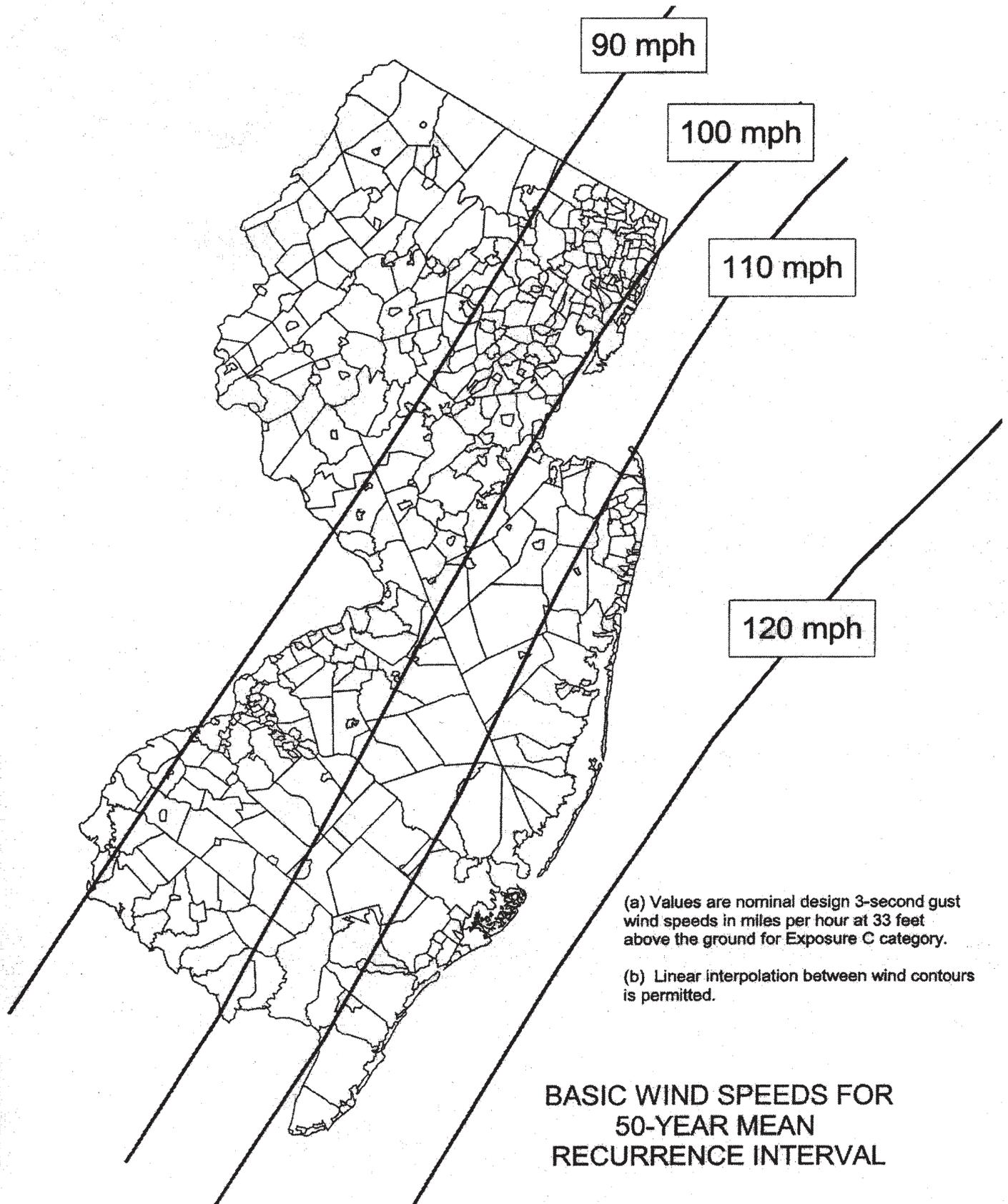
Another interesting change is that, for areas within one mile of the coastal mean high-water line where the wind speed is 110 mph or greater and within hurricane-prone regions, all building openings must be protected from wind-borne debris. Section 1609.1.4 of the IBC/2000, entitled "Protection of Openings," and Section R301.2.1.2 of the IRC/2000, entitled "Wind Limitations," address the wind-borne-debris area openings protection. These sections provide the criteria for compliance for opening protection in the regions where it is required.

In addition to these changes, interpolation is now allowed between the wind-speed contour lines.

The enlarged wind-speed map provides easier reading of the isolines of the Basic Wind Speed maps in the IBC/2000 and the IRC/2000. (This map is provided in Bulletin No. 03-4.)

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

Source: Marcel Iglesias
Code Assistance Unit



Stepped-Down Foundation Walls 

(Reprinted from the Fall 1995 edition of the *Construction Code Communicator*, Volume 7, Number 3)

The practice of reducing the thickness of foundation walls once the wall is above grade is ever increasing.

The scope of this article is limited to the use of Tables 1805.5(1) for plain masonry and plain concrete walls, and Tables 1805.5(2), 1805.5(3), and 1805.5(4) for reinforced concrete and masonry walls of the 2000 International Building Code, which specify the minimum thickness of foundation walls for various building materials when calculations are not provided.

The wall thickness specified in these tables is based on the height of unbalanced backfill which the foundation is required to support. The wall is required to be this thickness from support to support, in most cases from the top of the footing to the bottom of the sill plate. If the thickness of the

wall is reduced at any point in between supports, the depth of unbalanced backfill is limited to the tabular depth based on the reduced wall thickness.

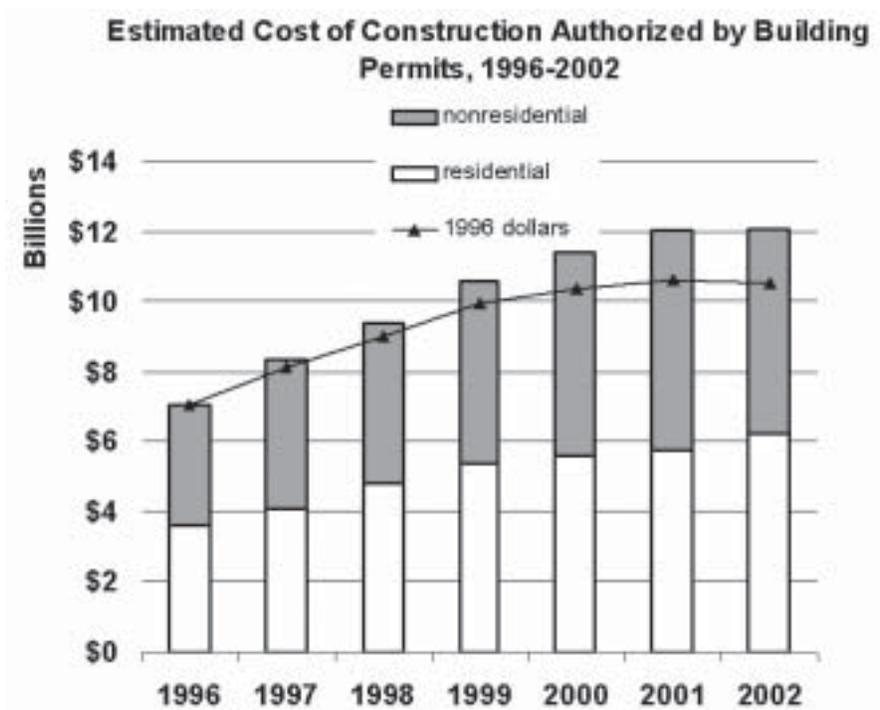
To demonstrate this point, envision the foundation wall on the horizontal plane. This wall is nothing more than a supported beam with the connections at the top of the foundation and the bottom of the plate being the end supports, and the unbalanced backfill being the distributed load. When viewing the wall in this plane, it is obvious that the thickness of the “beam” is required to be consistent from support to support. The same holds true for the vertical plane.

Should a design professional choose to use a design beyond the scope of Tables 1805.5(1) through 1805.5(4), calculations should be submitted for the code official’s review and release.

Source: John N. Terry
Code Assistance Unit

2002 Highlights of the *New Jersey Construction Reporter*

New Jersey’s construction industry had another strong year in 2002, but there are signs that the boom beginning in the late 1990s has peaked. Estimated construction costs authorized by building permits in 2002 reached \$12.1 billion. This was \$72 million more than the record level set last year, an increase of less than one percent. In real terms, assuming consumer prices increased by about 1.6 percent between 2001 and 2002, the estimated cost of construction authorized by building permits actually declined by about one percent.



Houses had a key role in the construction industry. Residential construction amounted to \$6.2 billion, 51.4 percent of all activity. Office, retail, schools, and other nonresidential uses accounted for \$5.9 billion, or 48.6 percent of the estimated construction costs reported on all building permits issued in 2002 for new structures, or additions and alterations to existing ones. In the seven years that the Department of Community Affairs has published construction statistics, the yearly increase in estimated construction costs had ranged between \$600 million and \$1.2 billion. This year, however, was the first time the annual increase was less than \$100 million.

Two other important indicators of the State's construction industry were down in 2002. The number of new houses authorized by building permits declined by nearly 1,100 units compared to last year. There were 34,589 authorized housing units in 2002. This was 3.1 percent less than the 35,680 authorized last year and 9.1 percent less than the 38,065 authorized dwellings in the year 2000; the latter has been a high-water mark for over ten years.

New Jersey Construction Indicators: 1996-2002				
	Estimated Construction Costs	Authorized Housing Units	Authorized Office Space (square feet)	Authorized Retail Space (square feet)
1996	\$7,028,424,990	27,577	6,229,515	4,880,139
1997	\$8,346,533,144	30,017	10,409,171	5,688,955
1998	\$9,396,755,517	35,676	12,703,824	7,921,892
1999	\$10,584,167,530	37,536	13,237,891	6,229,471
2000	\$11,387,683,514	38,065	15,531,039	6,063,412
2001	\$12,007,456,630	35,680	19,134,533	7,244,833
2002	\$12,079,942,099	34,589	9,261,054	7,560,913
<i>Change between 2001 and 2002</i>				
2001-2002	\$72,485,469	-1,091	-9,873,479	316,080
Percent Change	0.6%	-3.1%	-51.6%	4.4%
Source: N.J. Department of Community Affairs, 5/7/03				

The production of new office space declined sharply in 2002. Last year was a banner year for new office buildings. Construction officials issued permits for more than 19 million square feet of structures in the business use group, which includes commercial and public sector office buildings. Jersey City in Hudson County stood out with 4.1-million square feet, more than one-fifth of all the State's new office space. The Goldman Sachs tower on the Jersey City waterfront broke ground in 2001. The 1.5-million-square-foot building is across from New York City's financial district. When complete, the office tower will be reputedly the tallest man-made structure in New Jersey. In 2002, construction officials issued building permits for only about 9.2-million square feet of new office space. This was less than half the level of activity reported last year.

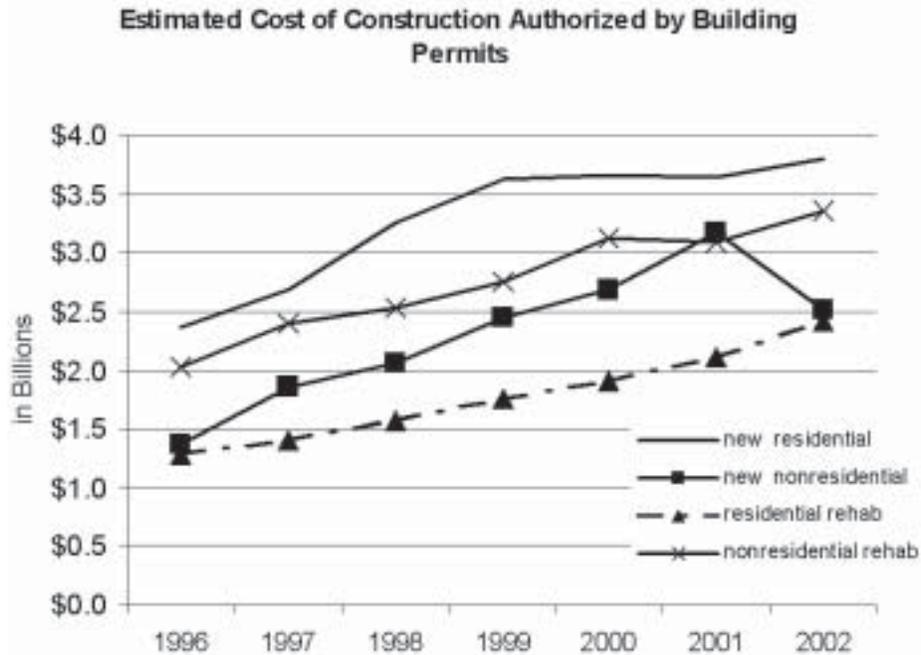
Retail uses showed modest gains in 2002. The amount of new retail area authorized by building permits for new construction or additions to existing buildings in the mercantile use group totaled 7,560,913 square feet. This was 4.4 percent more than last year.

Although office and other business uses had large and significant declines in 2002, total activity measured by the estimated dollar amount of construction stayed at about the same high level reached last year because of strong performances in other sectors of the construction industry. The market for new houses remained strong and increases in the amount of

(continued from page 13)

money spent to add to or alter existing homes, as well as to make improvements to nonresidential structures, compensated for the decline in office production.

The estimated cost of all permits issued for office and other business uses declined by \$780.7 million in 2002 compared to last year. Increases in residential construction (\$453.9 million over 2001), educational uses (which include schools for students in grades K through 12 — \$115.3 million more than last year), institutional uses (which cover such buildings as jails, hospitals, nursing homes, and assisted-living facilities — up by \$131.1 million), and retail uses (up by \$116.4 million) offset the decline in office construction.



The graph above tells several things about the dynamics of New Jersey's construction industry. New houses have a vital role in the industry's performance. In the late 1990s, the estimated cost of construction reported on building permits issued for new houses grew sharply, as did the number of new dwellings. In the early years of the 21st century, the number of new houses authorized for construction declined, but the cost of these houses continued to grow, albeit at a much slower pace, supporting the notion that the new houses that were approved were larger and more expensive. New housing construction increased by 3.8 percent over last year, a modest increase but still a force in the industry, considering the estimated cost of all new housing was nearly \$3.8 billion.

The graph also shows the steep decline in building permits issued for new, nonresidential structures. As discussed earlier, the drop-off in new office buildings accounts for much of this loss. After experiencing five years of double-digit increases, the estimated cost of construction reported on new construction permits for nonresidential structures declined by nearly 21 percent between 2001 and 2002.

In contrast was the performance of that part of the industry devoted to the rehabilitation of existing buildings. Permits for additions and alterations include tenant fit-ups. No doubt this was an important part of the level of activity in 2002, as contractors built to customize the new office space constructed in past years. Addition and alteration permits also were issued to repair older houses and improve nonresidential structures. In 2002, the estimated cost of construction for additions and alterations totaled \$5.8 billion. This was 48 percent of the estimated cost of all work reported on building permits. Last year, permits for additions and alterations accounted for only 43.2 percent of all work authorized. Between 2001 and 2002, rehabilitation work grew by \$590.6 million, or 11.4 percent. Additions and alterations to existing houses were especially strong, increasing by 14.9 percent, while nonresidential rehab grew by 9 percent over the 2001 level. Rehabilitation of houses and other existing buildings had a much more prominent role in New Jersey's construction industry in 2002.

Activity by Region

The geography of New Jersey construction activity shows that the central part of the State accounted for most of the new houses, new office buildings, and new stores. But, viewed in terms of dollars, northern New Jersey communities rose to the top. The dominance of central New Jersey in the housing market has been a trend for many years. In 2002, three of the top four counties with the most new houses were in the central part of the State. Ocean County was at the top with 3,949 authorized units, 11.4 percent of all the new housing in New Jersey. Middlesex and Monmouth Counties had 2,500 and 2,468 authorized units, respectively. Over one in four new houses were in those three counties.

Major Construction Indicators by Region: 2002				
Region	Estimated Cost of Construction	Authorized Housing Units	Authorized Office Space (square feet)	Authorized Retail Space (square feet)
North	\$4,958,039,635	12,557	2,655,202	1,815,521
Central	\$4,233,550,469	13,549	4,313,927	3,817,621
South	\$2,544,101,033	9,561	2,062,512	1,766,806
State Buildings	\$344,250,962	13	229,413	160,965
New Jersey	\$12,079,942,099	34,589	9,261,054	7,560,913
<i>Percent Distribution by Region</i>				
North	41.0%	33.2%	28.7%	24.0%
Central	35.0%	36.9%	46.6%	50.5%
South	21.1%	29.9%	22.3%	23.4%
State Buildings	2.8%	0.029%	2.5%	2.1%
New Jersey	100.0%	100.0%	100.0%	100.0%
Source: N.J. Department of Community Affairs, 5/7/03				
Northern New Jersey: Bergen, Essex, Hudson, Morris, Passaic, Sussex, Union, and Warren Counties				
Central New Jersey: Hunterdon, Mercer, Middlesex, Monmouth, Ocean, and Somerset Counties				
Southern New Jersey: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Salem Counties				

Nearly 47 percent of all new office space and more than half of all new retail space were in the central part of the State. Despite this concentration, a higher proportion of the estimated dollar amount of construction was in northern New Jersey. Communities in the northern part of the State had just under \$5 billion of activity (41 percent), while central New Jersey had \$4.2 billion (35 percent) and southern New Jersey accounted for \$2.5 billion (21.1 percent). Northern New Jersey communities were the site of several of the bigger permits issued during the year. These included two new construction permits for light rail transit systems in Hudson County, one in North Bergen Township with an estimated cost of \$150 million and the other in Weehawken Township with an estimated construction cost of \$100 million. Three new medical facilities were among the other large developments in 2002. Work began on a new hospital in the City of Vineland, Cumberland County. The construction cost of the facility exceeded \$125 million thus far. The Jersey City construction office issued a permit update for work begun last year for a new medical center. The estimated cost of construction in 2002 exceeded \$98 million. The City of Hackensack in Bergen County reported an \$80-million permit for a new medical center.

Big Cities Continue to Shine

The municipalities with the most work in 2002 were the State's largest cities. This continued a trend of recent years. Jersey City and the City of Newark (Essex County) ranked first and second with the most activity measured by the estimated

(continued from page 15)

cost of construction authorized by building permits. Jersey City had \$314.2 million and Newark had \$307.5 million. Strong housing markets were evident in both communities, only this time Newark ranked first with the most new houses (1,223 authorized units) and Jersey City was second among all localities with 907 authorized dwellings. In Jersey City, tenant fit-up work continued on the Goldman Sachs tower which, along with the new medical center, were among the largest projects in 2002. In addition to new housing, some of the larger developments in Newark included a new bank and several projects to expand facilities at the New Jersey Institute of Technology.

Construction Indicators Top New Jersey Municipalities: 2002					
Municipality	County	Estimated Cost of Construction (dollars)	Authorized Housing Units	Authorized Office Space (square feet)	Authorized Retail Space (square feet)
Jersey City	Hudson	\$314,154,029	907	157,198	430
Newark City	Essex	\$307,466,068	1,223	479,267	21,413
Atlantic City	Atlantic	\$256,518,474	201	972	8,000
Vineland City	Cumberland	\$188,442,308	251	150,176	8,700
North Bergen Township	Hudson	\$169,933,154	63	0	0
Montgomery Township	Somerset	\$139,845,765	607	0	0
East Brunswick Township	Middlesex	\$131,385,919	230	142,834	467,844
Hamilton Township	Mercer	\$123,381,049	421	283,439	1,055,656
Weehawken Township	Hudson	\$122,481,081	0	0	0
Jackson Township	Ocean	\$117,257,632	599	0	20,951
Top Municipalities		\$1,870,865,479	4,585	1,213,886	1,582,994
New Jersey		\$12,079,942,099	34,589	9,261,054	7,560,913

Source: N.J. Department of Community Affairs, 5/7/03

Atlantic City in Atlantic County ranked third among localities with the most work in 2002. The Showboat Casino Hotel had a \$55-million hotel addition. Work continued on the Borgata Hotel Casino and Spa. Other big permits reported for the year in Atlantic City were issued for a new thermal energy plant and a new middle school.

Vineland had \$188.4 million of construction in 2002, ranking fourth among all communities. In February, work began on a new hospital that will be a regional center for much of southern New Jersey. Permit updates for the complex were still being reported in November 2002.

North Bergen had \$169.9 million of construction. As mentioned earlier, excavation and construction of a light rail system for New Jersey Transit accounted for \$150 million of this total.

In Montgomery Township, Somerset County new housing, much in the form of assisted living, along with a new high school, accounted for a large part of the \$139.8 million of construction. The new high school will have 350,000 square feet and an estimated construction cost of over \$35 million. The assisted-living complex will have nearly 200 units, and is part of a larger medical complex that will include a nursing home and hospital for seniors. Estimated costs to build these facilities also will exceed \$35 million.

Construction activity in East Brunswick Township, Middlesex County was split between residential and nonresidential structures. Hamilton Township in Mercer County reported \$123.4 million of construction. Much of this consisted of several large, new retail stores, like Kohl's department store and a Lowe's Home Improvement Warehouse. Hamilton issued building permits for over one-million square feet of new retail space in 2002, tops among communities. As mentioned earlier, \$100 million of the \$122.5 million reported in Weehawken was for a new light rail facility. Much of the work in Jackson Township, Ocean County was for new housing. Jackson had 599 authorized dwellings in 2002, ranking eighth among all municipalities. Of the \$117.3 million reported for the year, nearly 72 percent was for residential work. Jackson also had a \$12.3-million permit for a new elementary school.

In addition to Newark and Jersey City, two other New Jersey cities were among the top 20 communities with the most new houses: the City of Hoboken in Hudson County and the City of Camden in Camden County. Hoboken had 576 authorized housing units in 2002, ranking ninth among all municipalities. Most of this was multifamily housing. Camden had 534 authorized units, of which 340 will be new, market-rate apartments resulting from the conversion of the old RCA factory. Because these units are from a conversion of an existing building, they are not counted by the United States Census Bureau, which looks only at new construction to report authorized housing. The New Jersey Department of Community Affairs, however, includes these dwellings in its tally of authorized dwellings. All told, Newark, Jersey City, Hoboken, and Camden accounted for 3,240 authorized dwellings in 2002. This was 9.4 percent of all the new housing units authorized by building permits.

New House Prices

The median sales price of the 23,647 new houses that began enrollment in a new home warranty program in 2002 was \$274,705. This was 8.3 percent more than the median sales price last year. Bergen County had the most expensive new houses. Half of the 1,122 new houses that started enrollment in a warranty program in 2002 cost more than \$478,000. Hunterdon and Somerset Counties had median sale prices of \$441,070 and \$405,490, respectively. The least expensive new houses were in Cumberland County. Half of the 231 new houses that began enrollment in a warranty program cost more than \$155,244. Most new houses built in New Jersey are required to enroll in a warranty program. The exceptions are apartments and other rental units, and new houses built by homeowners who acted as their own general contractors.

New House Prices			
Period	Number of New Houses	Median Sales Price	Percent Change in Sales Price
1996	20,903	\$183,300	
1997	21,640	\$190,000	3.7%
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%
1st Quarter 2002	5,645	\$259,900	
2nd Quarter 2002	6,381	\$274,612	5.7%
3rd Quarter 2002	5,894	\$279,900	1.9%
4th Quarter 2002	5,737	\$282,500	0.93%
1st Quarter 2003	4,018	\$290,900	2.9%

Source: N.J. Department of Community Affairs, 5/7/03

NOTES

NOTES

Greetings from Governor James E. McGreevey 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 all good wishes,


James E. McGreevey
Governor


Susan Bass Levin
Commissioner

Susan Bass Levin
Commissioner
NJ Department
of Community Affairs



James E. McGreevey
Governor
State of New Jersey



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Department of Community Affairs
Division of Codes and Standards



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Discount on ASHRAE Standards and Availability of NFPA Standards

Since the adoption of the Energy Subcode, which references the 1999 edition of the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) 90.1, the Department of Community Affairs has received many telephone calls pertaining to the high cost of purchasing copies of the ASHRAE 90.1-1999 standard. For those who are not members of ASHRAE, the cost of the above standard is \$20 higher than the member price.

We are happy to inform you that a "Code Official's Discount" for any of the ASHRAE standards has been negotiated with ASHRAE to provide a 30-percent discount off of the list price to eligible code officials. (Please note that prices do not include the cost of shipping.)

In order to receive the discount, "CODE OFFICIAL DISCOUNT" must be indicated clearly on the order form. All orders must be submitted on letterhead imprinted with the name of the municipality and title. A government purchase order and government check must also be included.

Please mail your order to:

ASHRAE
1791 Tullie Circle, NE
Atlanta, GA 30329

Attn: Phyllis Maurer, Customer Service Manager

Don't forget to indicate "CODE OFFICIAL DISCOUNT" on the order form!

Should you need to contact ASHRAE, the telephone number is 1 (800) 527-4723.

The Department has also received phone calls from code officials stating that back issues of the referenced National Fire Protection Association (NFPA) standards are unavailable. The Department has contacted NFPA to inquire about obtaining back issues of these standards and was informed that, for a fee, most back issues may be downloaded from the Internet. There are a limited number of certain standards available. Please call NFPA at (617) 770-3000 to verify which back issues are available.

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

Source: Thomas C. Pitcherello
Code Assistance Unit



James E. McGreevey
Governor



Susan Bass Levin
Commissioner

New Jersey Register Adoptions

Date: July 7, 2003
Adoption: 35 *N.J.R.* 2864(b)
Summary: This adopted amendment at *N.J.A.C.* 5:23-3.14(a)16x makes an administrative correction to include the correct abbreviation for compressive strength.

Date: July 7, 2003
Adoption: 35 *N.J.R.* 2865(a)
Summary: This adopted amendment at *N.J.A.C.* 5:23-9.2(b)3vi inserts text that describes software and prescriptive packages recognized by the Department of Community Affairs to demonstrate Energy Subcode compliance, which was omitted inadvertently in the May 19, 2003 code update.

Date: July 21, 2003
Adoption: 35 *N.J.R.* 3298(a)
Summary: This adopted amendment at *N.J.A.C.* 5:23-2.18 makes an administrative correction to revise a cross-reference to final inspection requirements and the codification of a subsection.

Date: August 4, 2003
Adoption: 35 *N.J.R.* 3608(a)
Summary: This adopted amendment at *N.J.A.C.* 5:23-2.24(g), entitled "Conditions of Certificate of Occupancy," makes an administrative correction to provide the correct name of the Bureau charged with enforcement of the Liquefied Petroleum Gas Code, which is the "Bureau of Code Services" of the Division of Codes and Standards, not the "Bureau of Codes and Services."

Date: September 2, 2003
Adoption: 35 *N.J.R.* 4051(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-3.14 and 3.17 reflect changes made necessary by the adoption of the 2000 edition of the International Building Code (IBC/2000) and the 2002 edition of the National Electrical Code (NEC/2002) as the Building and Electrical Subcodes of the Uniform Construction Code (UCC), respectively. All references to the 1996 edition of the Building Officials and Code Administrators National Building Code (BOCA/1996) and the NEC/1999 have been deleted, and the appropriate IBC/2000 and NEC/2002 references have been inserted in their place.

Date: September 15, 2003
Adoption: 35 *N.J.R.* 4281(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-4.5 delete the revision dates of the standard forms and logs listed in the UCC. In addition, the adopted amendments separate two existing dual-purpose forms (Notice of Violation and Order to Terminate/Notice Order to Pay Penalty and Notice of Unsafe Structure/Imminent Hazard) into their constituent parts. Finally, the adopted amendments delete the phrase "public inspection" because access to public records and files is addressed by the Open Public Records Act, *N.J.S.A.* 47:1A-1 et seq.

Date: October 6, 2003
Adoption: 35 *N.J.R.* 4712(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-2.8, 3.7, 3.8, and 3.8A require the use of field evaluation labels and reports, or letters from nationally recognized testing laboratories and reports of engineering findings issued by nationally recognized evaluation service programs, in approving the use of alternate materials. In addition, these adopted amendments recodify existing language on Departmental approval of systems for indirect apportionment of heating costs in multiple dwellings.

Date: October 6, 2003
Adoption: 35 *N.J.R.* 4713(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-2.23 and 4.5 define the inspection and enforcement responsibilities of construction and subcode officials with regard to buildings, structures, and projects that have received a Certificate of Occupancy or Certificate of Approval.

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Date: October 6, 2003
Adoption: 35 *N.J.R.* 4714(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-9.1 revise previously adopted language at *N.J.A.C.* 5:23-9.1 to clarify that attached single-family dwellings in groups of three or more may be served by common water lines and sewer laterals provided a homeowners' association or other owners' entity ensures maintenance.

Date: October 20, 2003
Adoption: 35 *N.J.R.* 4861(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-2.18C, 6.6, and 6.7 make administrative corrections to include correct cross-references to *N.J.A.C.* 5:23-2.20(e), entitled "Tests and Special Inspections," and *N.J.A.C.* 5:23-6.6(k)2, "Alterations."

Date: October 20, 2003
Adoption: 35 *N.J.R.* 4861(b)
Summary: These adopted amendments delete the provisions requiring elevators in large multifamily residential buildings from *N.J.A.C.* 5:23-7.5, which governs residential buildings other than Group R-1 (hotels and motels). In addition, these adopted amendments change "Use Group" to "Group" and delete or replace the references to Group R-4 to reflect the residential definitions in the recently adopted IBC/2000, the Building Subcode of the UCC.

Date: November 3, 2003
Adoption: 35 *N.J.R.* 5073(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-3.14 and 3.21 retain the code requirements applicable to the height and area limitations for structures built to the One- and Two-Family Dwelling Subcode of the UCC. In addition, these adopted amendments incorporate the requirements of the previously adopted Building Subcode, BOCA/1996, which established the conditions for increasing the height or area of a one- or two-family dwelling. Finally, these adopted amendments to the Building Subcode of the UCC provide a single standard for means of egress components for one- and two-family dwellings and the interior of multifamily dwelling units regardless of whether the dwellings are constructed to the Building Subcode or the One- and Two-Family Dwelling Subcode.

Date: November 3, 2003
Adoption: 35 *N.J.R.* 5062(b)
Summary: These adopted amendments to *N.J.A.C.* 5:23-3.2, "Matters Covered, Exceptions," update the references to the Building Subcode of the UCC that concern commercial farm buildings.

Date: November 3, 2003
Adoption: 35 *N.J.R.* 5064(a)
Summary: These adopted amendments to *N.J.A.C.* 5:23-3.4 assign plan review and field inspection responsibilities for the requirements of the Building, Electrical, and One- and Two-Family Dwelling Subcodes of the UCC.

Date: December 1, 2003
Adoption: 35 *N.J.R.* 5371(b)
Summary: This adopted amendment at *N.J.A.C.* 5:18-1.3 would allow any person seeking a waiver or modification of the requirements set forth at *N.J.A.C.* 5:18 to submit a request in instances where strict adherence to the rules would pose a hardship, or where technical advances allow for an alternative that would provide equivalent protection.

Date: December 15, 2003
Adoption: 35 *N.J.R.* 5543(a)
Summary: These adopted amendments at *N.J.A.C.* 5:23-1.4, 2.2, 2.17A, and 9.3 allow the replacement of shower or combination bath/shower valves in bathrooms in single-family dwellings without obtaining a UCC permit. Also, these adopted amendments update the UCC by deleting terms that are unnecessary or obsolete.

Source: Megan K. Sullivan
Code Development Unit

Barrier Free Subcode: Large Building and Small Building No Longer Apply to Multifamily Residential Structures

Just a year ago (Winter 2002), I wrote an article in the *Construction Code Communicator* informing all readers the large building/small building distinction that had traditionally been applied to commercial buildings, as a result of an Appellate Court decision, also applied to multifamily residential structures. This year, I am writing to tell you that is no longer the case.

On May 5, 2003, Governor James E. McGreevey signed into law (P.L. 2003, c. 72) amendments to the Uniform Construction Code (UCC) Act specifying that the large building/small building distinction applies only to commercial structures and that townhouses, as they have been defined in the Barrier Free Subcode, are exempt. At the same time the UCC Act was amended, statutes that covered similar requirements were also amended, so there is now statutory agreement.

Amendments to the Barrier Free Subcode were proposed on July 7, 2003 and adopted on October 20, 2003 implementing the statutory change. Once and for all (we hope), the accessibility requirements for multifamily residential structures return to the 1995 Barrier Free Subcode requirements. In sum:

- In buildings with four or more dwelling units in a single structure, where there is elevator service, all (100 percent) of the dwelling units must be accessible.
- In buildings with four or more dwelling units in a single structure, where there is no elevator service, the ground-floor dwelling units must be accessible.
- When determining the number of dwelling units in a single structure, firewalls do not designate separate buildings.
- When determining whether a dwelling unit is a ground-floor dwelling unit, the following definition is critical: In a building containing dwelling units, the first floor containing a dwelling unit or a portion of a dwelling unit is considered the ground floor, regardless of whether that ground floor is at grade (*N.J.A.C. 5:23-7.5*).
- Townhouses are exempt from the Barrier Free Subcode. A townhouse is defined as: A single dwelling unit with two or more stories of living space, exclusive of basement or attic. The dwelling unit shall have an independent entrance that shall serve a single dwelling unit only and that is at or near grade; most or all of the sleeping rooms shall be

on one story; and most of the remaining habitable space, such as kitchen, living, and dining areas, shall be on another story.

- When being applied to dwelling units, the terms “accessible” and “adaptable” are interchangeable. They mean that the building has an accessible building entrance; an accessible interior route into and through the dwelling unit; and required clear floor spaces, reach ranges, and maneuvering space. The kitchen and bathrooms may have adaptable features.

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

Source: Emily W. Templeton
Code Development Unit

U.S. Census Bureau and DCA Monthly Data Collection

For those who don't know me, my name is Charlie Pierson, Jr. My job at the Department of Community Affairs is to collect all permit and certificate data that each town submits to the Department on a monthly basis, as well as provide technical support for the Uniform Construction Code Administrative Records System (UCCARS). I would like to begin by saying that you are all doing a wonderful job by submitting your data each month. This makes everything run much smoother at the Department.

Secondly, I would like to discuss census reports. Each month, *only* if you submit your reports to the Department on paper rather than through an electronic transmission or e-mail, you need to include a report to the Federal Census Bureau. It is very important that you *do not* send anything to the Census Bureau if you transmit your reports electronically or by e-mail because it will only cause confusion.

In addition, if you do not have form C-404, please call 1 (800) 845-8244 and request one. You must fill this form out for every month in which you send the Department a paper report. This form must also be submitted for any past months this year in which you have sent me a paper report.

If you do not send in your monthly building permit report to the Department, expect to hear from me. If you are sending paper reports to the Department, but forget to send in a paper report to the Census Bureau, you also can expect to hear from me because my job is to help the Census Bureau obtain its monthly reports, as well.

If you have questions about any of these monthly reports, please contact me at (609) 292-7899. You might have additional questions for the Census Bureau. Remember, you have monthly reporting obligations to both agencies.

Contact the U.S Census Bureau at:

U.S. Census Bureau
1201 East 10th Street
Jeffersonville, IN 47132-0001

Phone: 1 (800) 845-8244
Fax: 1 (800) 438-8040
E-mail: mcd@census.gov

Source: Charles Pierson, Jr.
UCCARS Product Support

Help Prevent the Illegal Development of Environmentally Sensitive Areas in Your Town

From the mountains of Sussex County to the shoreline of Cape May, New Jersey has several land-use laws and rules that impact many sites across the State. These laws are administered and enforced by the New Jersey Department of Environmental Protection (DEP) and include the Freshwater Wetlands Protection Act, the Flood Hazard Area Control Act, the Wetlands Act of 1970 (coastal wetlands), the Waterfront Development Act, the Coastal Area Facility Review Act, and the Riparian Lands Act (tidelands).

These laws regulate a broad range of construction and development activities, as well as many activities related to site preparation including filling, grading, excavation, and the clearing of vegetation in areas that have been determined to have special environmental value or sensitivity.

As municipal officials, particularly those charged with issuing permits for construction and/or land disturbances, it is important to become familiar with these laws. Many violations identified by the DEP's Bureau of Coastal and Land Use Compliance and Enforcement (BCLUCE) can be prevented at the local level by zoning or construction officials and/or municipal engineers by ensuring that the proper permits have been obtained before building permits are issued. Once projects are approved on the local level and construction activities begin, they are much harder to stop or reconfigure. Please ensure that, prior to projects being approved by you, all necessary State land-use permits are in place.

Some towns require the submittal of a State-verified freshwater wetland Letter of Interpretation, which identifies

wetlands and buffers, as part of the building permit application. In addition, a DEP-issued permit may be required when development activity is to occur in a flood plain or in the vicinity of a stream. This permit is called a "Stream Encroachment Permit."

The DEP recognizes that the presence of freshwater wetlands or flood plains on a site is not always obvious. There are resources available to help you help us protect these important areas: iMap, found on the DEP web page at www.nj.gov/dep, is a mapping tool that can provide you with general information about various regulatory boundaries and much more. Wetlands should always be field verified for precise accuracy of location. The use of county soil surveys to identify poorly drained or very poorly drained soils is also helpful in locating areas that may contain wetlands. A caution is appropriate here. The maps that are available on iMap are up to ten years old. Therefore, they should not be regarded as definitive or accurate in their details, but should be used as a resource to provide more general land-use information.

If you suspect that a project may impact a sensitive environmental area, you may require the builder to obtain a determination from the DEP by calling the Land Use Regulation (permitting) Program at (609) 292-0060. For more information on these land-use laws and available permits, check out www.nj.gov/dep/landuse.

If you have any questions or concerns in regard to activities occurring on sensitive land areas, please call BCLUCE at (609) 292-1240 for Mercer County and north, and (732) 255-0787 for Monmouth County and south. For more information on BCLUCE, click onto www.nj.gov/dep/enforcement/clue.html.

Together we can ensure that these areas of beauty and benefit are managed in a responsible and intelligent way.

Source: Barbara Baus
Supervising Environmental Specialist
DEP BCLUCE

New Jersey Code Adoptions -- Elevator Safety Subcode

The following chart gives the adoption dates and the edition of the codes and standards used for the Elevator Safety Subcode.

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

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

- 1) Consult construction files to determine under which code the permit was taken out;

- 2) If code information is not available, apply the previous code. For example, when performing cyclical inspections, if the permit — or installation — date precedes or is within the grace period, apply the code edition immediately preceding the adoption of the new subcode. Example: A permit was issued on May 15, 1987. If the construction file does not have the information about the edition of the standard used, then ANSI A17.1 - 1984 is enforced. If the permit was issued on November 16, 1987, the ANSI A17.1 - 1984 with the 1985 supplement apply.

S = Supplement
AS = Accumulative Supplement
A = Amendments
* = Operative date

If you have questions about the Elevator Safety Subcode, you may reach the Elevator Safety Unit at (609) 984-7833.

Source: Paulina Caploon
Elevator Safety Unit

Vent Piping Size for Fuel Oil Tanks

The Department of Community Affairs has received questions pertaining to the vent piping size requirements for fuel oil storage tanks smaller than 660 gallons.

The 1992 edition of National Fire Protection Association (NFPA) 31 requires vents for tanks smaller than 660 gallons to be 1 1/4". In 1997, NFPA 31 increased the vent piping size requirement to 2". However, in 2001, NFPA 31 reverted to the smaller size requirement.

The 1997 edition of NFPA 31 is referenced in the 2000 edition of the International Mechanical Code (IMC/2003), the Mechanical Subcode of the Uniform Construction Code.

The Department is reviewing IMC/2003, which will be proposed for adoption early in 2004. Because IMC/2003 references the 2001 edition of NFPA 31, which requires the 1 1/4" vent, the Department advises that, in the interim, code officials allow the use of the smaller vent.

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

Source: Thomas C. Pitcherello
Code Assistance Unit

Local Government Ethics Law – Acceptance of Gifts

Code officials and inspectors, like all local government officials and employees, must bear in mind their obligations under the Local Government Ethics Law, specifically the prohibition in *N.J.S.A. 40A:9-22.5*, paragraph f, against soliciting or accepting any gift, favor, or other thing of value based upon an understanding that it was given or offered for the purpose of influencing the official or employee in the performance of his or her official duties. Code officials and inspectors may reasonably assume that **any** gifts given or offered to them by someone with whom they may have contact in an official capacity is being offered or given with the intent of influencing them in that official capacity, and all said gifts should therefore not be accepted, no matter how small they may be.

Any questions concerning this requirement may be addressed to the municipal ethics board, if there is one, or to the Local Finance Board of the Department of Community Affairs, which is responsible for enforcement of the Local Government Ethics Law in municipalities that do not have their own board.

If you have any questions regarding the Local Government Ethics Law, please call Dave Nenno of the Division of Local Government Services at (609) 292-4537, or e-mail dnenno@dca.state.nj.us.

Source: Michael L. Ticktin
Chief, Legislative Analysis

Changes in Testing

There are three important changes in the test administration of the exams produced by the National Certification Program for Construction Code Inspectors (NCPCCI), which is administered by Experior Assessments, Inc. There are changes in test sites and examination fees, and in January all exams except electrical are being updated to the 2003 code editions.

1. **TEST SITES:** For the past few years, the exams used in licensing code officials have been offered in testing sites owned by Prometric, Inc., a test administration company. The tests have often been given in Sylvan Learning Centers. Effective in January 2004, test administration sites will change from those owned by Prometric to those that are part of the Experior Testing Network. There is currently only one Experior Testing Network site in New Jersey. It is in West Orange. In approximately six months, there will be an additional testing site in Princeton. There are also testing sites in Philadelphia and Manhattan. Information on these sites is available on the Experior web site, www.experioronline.com. For convenience, the Department of Community Affairs is in the process of establishing a link to Experior's web site on the Division's web site.

2. **EXAM FEES:** Also effective in January, the cost of taking a test will change. Each exam will be \$120. The cost of taking linked exams will also change: two linked exams will be \$195; three linked exams will be \$290. The linked exams are those listed in the Candidate Information Bulletin that is published by Experior. Remember: when the exams are linked, there is no break at all between the exams. The second (or third) exam begins the instant the first (or second) exam has been completed.

3. **UPDATED EXAMS:** Beginning in January 2004, all exams except electrical (which is on a different code-change cycle) will be updated to the 2003 code editions. **There will be a testing black-out period from January 1, 2004 through January 19, 2004. No exams will be given during this period.** This black-out period will enable Experior to load the new exams onto the computers in the test centers. All registrations received after December 19, 2003 will be processed for the 2004 exam dates that begin January 20, 2004. (This is because there is not enough time between December 19 and the end of the year to receive and process registrations, and to schedule examinations for a 2003 exam date.)

For information on the testing sites or test registration, please contact Experior at 1 (800) 864-5309, or access the Experior web site at www.experioronline.com.

The most recent Candidate Information Bulletin is available on the Experior web site.

ICC Exams

At this time, the Department will accept the results of the exams offered by the International Code Council (ICC). The ICC offers exams for building and mechanical, will offer plumbing exams that are compatible with the National Standard Plumbing Code shortly, and are developing exams for fire protection officials. Information about the ICC exams may be found on its web site, www.iccsafe.org. Exams that are eligible in New Jersey are listed under "New Jersey Legacy Exams."

For information on licensing requirements for code officials in New Jersey, please contact the Licensing Unit in the Bureau of Code Services at (609) 984-7834.

If you have problems with the exams themselves, or if you have problems with Experior, please contact me at (609) 984-7609.

Source: Emily W. Templeton
Code Development

Health Care Facilities Plan Review Authority

It has come to the Department of Community Affairs (DCA), Bureau of Construction Project Review's attention that the authority for the review of projects to be undertaken at licensed health care facilities may be unclear to some local officials. Several design firms have called or e-mailed the DCA regarding this subject after having been told by construction officials and subcode officials throughout the State that their plans are not required to be reviewed by the DCA because Class I municipalities are permitted by law to review and approve construction plans for licensed health care facilities.

This is incorrect!

The Uniform Construction Code (UCC) at *N.J.A.C. 5:23-3.11(a)8*, "Enforcement Activities Reserved to the Department," clearly provides that the DCA shall be the sole plan review agency for all health care facilities.

The Health Care Plan Review Unit, which is now at the DCA and was formerly at the New Jersey Department of Health and Senior Services, has been the sole plan review agency for health care facilities for over 30 years. The unit was given this responsibility due to the complexity of these types of projects, and because of the numerous codes and standards -- including both State and Federal licensing

standards -- that must be applied in the review of such projects. Local officials, unfamiliar with these standards or how they must be applied, might miss these important items. This could result in noncompliance of these facilities with the noted standards, which in turn would result in the loss of funding to such facilities under several Federal programs.

The DCA does allow the return of some small, non-patient care projects in health care facilities (e.g., employee offices, staff lounges on non-patient floors, administrative offices, staff dining areas, etc.) to local jurisdiction, but only after the DCA has performed a cursory evaluation of the proposed project. Upon completion of this evaluation, written permission in the form of a letter from either David B. Uhaze, Chief, Bureau of Construction Project Review, or Farivar Kiani, Supervisor, Health Care Plan Review, must accompany the plans sent to the municipality's building department.

Further guidance on this matter for construction officials or subcode officials can be found in UCC Bulletin No. 98-3, "Health Care Facilities Plan Review," or by calling our offices at (609) 984-7850.

Source: David B. Uhaze, RA
Chief
Bureau of Construction Project Review

Single-Family Homeowner Plans

A number of callers have asked the Code Assistance Unit of the Department of Community Affairs whether a homeowner may submit his or her own plans to the local construction department for a detached accessory structure (e.g., garage, barn) for personal vehicles, pets, and/or storage on the same property of a single-family home.

The answer is "Yes."

Based upon the provisions set forth at *N.J.A.C.* 5:23-2.15(e)1ix, "Construction Permits – Application," a single-family homeowner may prepare his or her own plans for the construction, alteration, or repair of a structure that will be used **exclusively** as the homeowner's private residence and/or accessory structure. These provisions also require that the structure be constructed by the homeowner or homeowner's agent. The home and/or accessory structure must be intended for personal use, not business or commercial purposes.

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

Source: Rob Austin
Code Assistance Unit

IRC Height and Area Issue is Resolved

As most of you know, upon adoption of the International Residential Code (IRC), the Department of Community Affairs reserved the old height and area limitations of the 1996 edition of the Building Officials and Code Administrators (BOCA) National Building Code for additional public comment. The Department has received several comments and, upon review, concluded that the height and area limitations of BOCA/1996, which were incorporated into the One- and Two-Family Dwelling Subcode, would better serve the citizens of the State. The purpose of this article is to explain the impacts of these amendments.

□ At *N.J.A.C.* 5:23-3.14(b)3, the Building Subcode, the definition of Group R-3 has been changed to clarify that all detached one- and two-family dwellings beyond the design parameters of the IRC must be designed and constructed in accordance with the International Building Code (IBC) as an R-3.

□ At *N.J.A.C.* 5:23-3.14(b)10, Chapter 10 of the IBC, "Means of Egress," has been amended to reflect all of the residential stair, guardrail, and handrail issues that were changed in the IRC. Because there are more residential buildings required to be constructed in accordance with the IBC, it was necessary to incorporate the residential stair, guardrail, and handrail requirements into the IBC.

□ At *N.J.A.C.* 5:23-3.21(b), the One- and Two-Family Dwelling Subcode, the parameters of the IRC have been clearly established as all detached one- and two-family buildings or single-family townhouses that are not more than three stories in height (Group R-5). Additionally, the definition of the term "townhouse" is incorporated into the Uniform Construction Code (UCC).

□ At *N.J.A.C.* 5:23-3.21(c)3, a new section has been added establishing height and area limitations for Group R-5 buildings. These height and area limitations include the concepts of "Increase in Height" and "Increase in Area."

This is a brief summary of the changes that have been promulgated. Please take the time to amend your New Jersey editions of both the IRC and the IBC to reflect these amendments. The full text of the amendments follows and subscribers to the UCC have received this amendment through the subscription service. Should you have any further questions, please contact me directly at (609) 984-7609.

The following is provided so it can be inserted easily on page 25 of the IBC for Section 310.1 R-3 and R-5, and page 14 of the IRC for Section R.300.

(continued from page 9)

310.1 (page 25 of NJ IBC)

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

- Single residential occupancies, accessory to a dwelling unit, having no more than five roomers or lodgers. (Single occupancies, accessory to a dwelling unit, having more than five roomers or lodgers shall be classified as Group R-2 or I-1, as appropriate.)
- Adult and child day-care facilities, accessory to a dwelling unit, serving five or fewer persons of any age for less than 24 hours.
- Rooming houses with five or fewer residents.
- Therapeutic residences with five or fewer residents.

310.1 (page 25 of NJ IBC)

R-5 Detached one- and two-family dwellings not more than three stories in height, and multiple single-family townhouses not more than three stories in height, designed and constructed in accordance with the One- and Two-Family Dwelling Subcode.

R300 (page 14 of NJ IRC)

R300 Height and Area Limitations Buildings of VB, unprotected, wood-framed construction, as that term is defined in Section 602 of the Building Subcode, shall be not more than two stories, not more than 35 feet in height, and not more than 4,800 square feet in area per floor. For the purpose of applying this section, a habitable attic shall not constitute a story. A habitable attic shall be an attic that has a stairway as a means of access and egress, and in which the ceiling area at a height of seven feet above the attic floor is not more than one-third the area of the next floor below.

R300.1 Increases in Height The building shall be not more than three stories and not more than 55 feet in height where the building is equipped throughout with an automatic sprinkler system installed in accordance with the National Fire Protection Association (NFPA) Standard 13 or 13R, and where the system is monitored by an approved supervising station in accordance with NFPA 72.

R300.2 Increases in Area The area of a building may be increased as provided in Sections R300.2.1 and R300.2.2 below.

R300.2.1 The area limitation shall be permitted to be increased 200 percent for one- and two-story buildings, and 100 percent for buildings more than two stories in height

where a building is equipped throughout with an automatic sprinkler system installed in accordance with NFPA Standard 13.

R300.2.2 The area limitation shall be permitted to be increased 2 percent for each 1 percent of excess frontage where a building has more than 25 percent of the building perimeter fronting on a street or other unoccupied space. The unoccupied space shall be on the same lot or dedicated for public use, shall be not less than 30 feet in width, and shall have access from a street by a posted fire lane that is not less than 18 feet in width.

R300.3 Buildings of VA Construction Buildings of VA, protected, wood-framed construction, as that term is defined in Section 602 of the Building Subcode, shall be not more than three stories, not more than 40 feet in height, and not more than 10,200 square feet in area per floor.

R300.3.1 Buildings of VA construction greater than three stories in height shall be designed and constructed in accordance with the Building Subcode.

R300.3.2 Buildings of VA construction shall be permitted to be increased in area in accordance with R300.2.

R300.4 Buildings of Other Types of Construction The height and area limits allowable for buildings of construction type VA shall apply to other construction types, as they are defined in Section 602 of the Building Subcode, provided that the fire ratings of building elements meet or exceed the requirements for type VA in Tables 601 and 602 of the Building Subcode.

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

Source: John N. Terry
Code Assistance Unit

Packaged Spa/Hot Tub

A number of callers have asked the Code Assistance Unit of the Department of Community Affairs whether the use of nonmetallic, sheathed cable is an acceptable wiring method for a packaged spa/hot tub with factory-installed and wired luminaries, and whether this type of wiring method can be used for a disconnect switch or breaker enclosure (no additional poles and not a sub-panel, but the breaker for the unit only).

The 2002 edition of the National Electrical Code, Section 680.2, entitled "Swimming Pools, Foundations, and Similar Installations, Definitions," defines a packaged spa or hot-tub equipment assembly as a factory-fabricated unit consisting of water-circulating, heating, and control equipment mounted on a common base. (Equipment may include pumps, air blowers, heaters, lights, controls, sanitizer generators, etc.)

Section 680.42(C), "Outdoor Installations, Interior Wiring to Outdoor Installations," states that any wiring method set forth in Chapter 3, "Wiring Methods and Materials," containing a copper equipment-grounding conductor that is insulated or enclosed within the outer sheath of the wiring method and not smaller than 12 AWG shall be permitted to be used.

Section 680.42 shall comply with Part 1, "General," and Part II, "Permanently Installed Pools." Single-family dwellings under Section 680.21(A)(4) are permitted the use of wiring methods set forth in Chapter 3. Section 680.25, "Feeders," must be applied for feeders that supply panelboards (sub-panels) for the spa/hot-tub equipment.

Therefore, nonmetallic, sheathed cable is an acceptable interior wiring method in a single-family dwelling, or in the interior of another building or structure associated with a single-family dwelling, for a packaged spa or hot tub. If the disconnect is located on the interior of a building or structure, nonmetallic, sheathed cable is allowable on the line and load side. If the disconnect is located at the exterior of the building or structure, nonmetallic, sheathed cable may be used on the line side of the disconnect and an approved exterior wiring method with an insulated copper equipment-grounding conductor from Chapter 3, and as applicable under Sections 680.42 and 680.42(A), on the load side. In any case, if the light is factory-installed, the wiring requirements of Section 680.23, "Underwater Luminaries (Lighting Fixtures)," or Section 680.33, "Luminaries (Lighting Fixtures)," do not apply. If you have any questions on this matter, you may reach me at (609) 984-7609.

Source: Suzanne Borek
Code Assistance Unit

Energy – Can't Download? No Problem!

The REScheck, New Jersey edition and COMcheck EZ Energy Subcode compliance tools can be downloaded FREE from the U.S. Department of Energy's web site at www.energycodes.com.

If the user is unable to download the compliance tools, he or she may use the ONLINE compliance tools. No downloading is required — just use the compliance tool as it appears on your computer screen.

The link for the new online REScheck Package Generator compliance tool is:

<http://bldgcode.pnl.gov/REScheckPkgGen/PkgGen.html>

The link for the new online COMcheck Package Generator compliance tool is:

<http://bldgcode.pnl.gov/COMcheckPkgGen/PkgGen.html>

REScheck Package Generator has the following features:

- Requires no download or installation of software on your desktop.
- Demonstrates compliance with 1992, 1993, and 1995 Mechanical Energy Code; 1998 International Energy Conservation Code (IECC); and 2000 IECC (state-specific code versions are available as of late 2003).
- No additional downloads required for code changes.
- Performs the same UA calculation as the desktop software.
- Saves your projects online for easy access from work or home.

COMcheck Package Generator has the following features:

- Is a cross between two currently available tools: the COMcheck EZ Software and the COMcheck Prescriptive Packages.
- Allows you to generate your own custom prescriptive packages on the web without downloading software or PDF versions of prescriptive packages.
- Allows you to generate your own code-compliant packages based on your building location and window-to-wall ratio.

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

Source: Rob Austin
Code Assistance Unit

Replacement Windows in Wind-Borne Debris Regions

With the adoption of the International Residential Code (IRC), there have been numerous inquiries regarding replacement windows in high-wind regions.

By definition, a wind-borne debris region is an area within a hurricane-prone region that is within one mile of the coastal mean high water line where the basic wind speed is 110 miles per hour or greater.

According to the Rehabilitation Subcode (*N.J.A.C. 5:23-6*), the replacement of windows is considered a renovation and must comply with *N.J.A.C. 5:23-6.8*, "Materials and Methods." The provision of the IRC that requires windows to be protected from impact resistance is NOT contained in *N.J.A.C. 5:23-6.8*. Therefore, replacement windows in wind-borne debris regions are NOT required to be protected.

Should you have further questions regarding this issue, please contact me at (609) 984-7609.

Source: Marcel Iglesias
Code Assistance Unit

Windows in Wind-Borne Debris Regions

The section of the International Residential Code that has been the root of the largest number of code assistance inquiries is Section R301.2.1.2, "Internal Pressure." The purpose of this article is to provide a clear summary of the requirements of this code section.

Section R301.2.1.2 requires windows in *wind-borne debris regions* to be protected from wind-borne debris; otherwise, the building must be designed as a partially enclosed building in accordance with the International Building Code. An exception to this rule is provided that allows the use of 7/16-inch wood structural panels precut to cover the glazed opening with the attachment hardware provided. But, what triggers this requirement?

According to Section R202, "Definitions," a *wind-borne debris region* is an area within a *hurricane-prone region* that is within one mile of the coastal mean high water line where the basic wind speed is 110 miles per hour or greater. Contained in this definition is another defined term: *hurricane-prone region*. As per R202, a *hurricane-prone region* is an area vulnerable to hurricanes, defined as the U.S. Atlantic Ocean and the Gulf of Mexico coasts. But, what does all this mean?

Short version: Buildings constructed within one mile of the mean high water line of the Atlantic Ocean and having a wind speed of 110 miles per hour are required to have windows that are protected from wind-borne debris. This protection may be in the form of impact-resistant glazing or by means of 7/16-inch thick plywood to protect openings. This plywood does not need to be installed in order for the approval to be granted; it needs to be precut and provided with attachment hardware.

This should solve many of the problems associated with this new code section; however, should you need additional clarification, please call me at (609) 984-7609.

Source: John N. Terry
Code Assistance Unit

Stacked Washers and Dryers

Recently, the Code Assistance Unit has received a number of questions concerning whether stacked washers and dryers may be installed in accessible/adaptable dwelling units. Provided that the laundry equipment meets the reach-range requirements of International Codes Council/American National Standards Institute (ICC/ANSI) A117.1-1998, the answer is "Yes."

At *N.J.A.C. 5:23-7.5*, the Barrier Free Subcode references ICC/ANSI A117.1-1998, Section 1002.10, entitled "Laundry Equipment," which sets forth requirements for clear floor space and reach ranges of washers and dryers in a dwelling unit. The laundry units are to be centered on the clear floor space with a parallel approach and each must have its operable parts within the code-specified reach ranges in accordance with ICC/ANSI A117.1-1998, Section 309, entitled "Operable Parts."

Operable parts include all controls and any movable parts that a user would need to operate in the normal course of the equipment's use. Such parts include the doors on a front-loading machine or the lid of a top-loading machine; the lint screen; the various dispensers for detergent, bleach, fabric softeners, etc.; and the knobs, switches, and levers. Please note that Section 309 indicates the maximum reach ranges for both the forward and the parallel approaches. However, since Section 1002.10 requires only the parallel approach for washers and dryers, the forward approach may be disregarded.

In short, if all operating mechanisms on stacked laundry units are within the required reach ranges, then the stacked units are acceptable. However, if they are outside of the reach-range requirements, then they do not meet the Barrier Free Subcode and the units may not be installed.

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

Source: Jeffrey Applegate
Code Assistance Unit

Residential Site Improvement Standards Now on the DCA Web Site

The Department of Community Affairs is announcing the most recent addition to its web site: the Residential Site Improvement Standards (RSIS). These rules, developed by the Site Improvement Advisory Board and codified at *N.J.A.C. 5:21*, establish technical standards for the infrastructure of residential development — streets, parking, water supply, sanitary sewers, and stormwater management.

This set of standards can be accessed at <http://www.nj.gov/dca/codes/nj-rsis/index.shtml>. If you have any questions regarding the RSIS, please feel free to contact Melinda Reisner or myself at (609) 292-7898.

Source: Mary Ellen Handelman
Office of Planning and Program Development

The Redevelopment Handbook

The Department of Community Affairs and the New Jersey Chapter of the American Planning Association have jointly published *The Redevelopment Handbook: A Guide to Rebuilding New Jersey's Communities*. Written by Stan Slachetka, AICP, P.P. and David G. Roberts, AICP, P.P., ASLA, CLA, the *Handbook* contains a summary and explanation of laws and regulations that impact redevelopment in New Jersey.

Part of Governor James E. McGreevey's Smart Growth initiative, this publication provides an overview of redevelopment issues in New Jersey. The *Handbook* emphasizes public/private partnerships and encourages municipalities to develop a practical, realistic redevelopment plan. By including an analytical framework for making redevelopment decisions and evaluating proposals, the *Handbook* provides the underpinnings for a thoughtful, comprehensive, and creative review of municipal assets.

The *Handbook* is divided into four distinct parts.

PART 1, entitled "An Introduction to Redevelopment," provides an overview of legal authority -- constitutional, statutory, and regulatory; it gives direction on framing and identifying the problems involved in redevelopment; and it

summarizes the redevelopment process in New Jersey by identifying the participants, providing information on the required public hearing, and including guidance on how to select a redeveloper.

PART 2, entitled "The Redevelopment Planning Process," is the heart of the book. It discusses all kinds of areas that are eligible for redevelopment, such as areas with deteriorated buildings, areas with abandoned commercial or industrial structures, areas where the layout and design need to be changed, and areas that are underutilized. Part 2 details how to designate a redevelopment or rehabilitation area; it emphasizes the pieces of a redevelopment plan.

PART 3, entitled "Implementation," discusses the power and authority that result from the adoption of a redevelopment plan, including tax abatements and tax exemptions. It also gives direction on how to select a redeveloper.

PART 4, entitled "Brownfields," addresses this very specific kind of redevelopment challenge.

Government officials may obtain this comprehensive, informative, and practical *Handbook* by contacting me at (609) 984-7609. Others may obtain the *Handbook* through the American Planning Association web site at www.njapa.org by downloading a form containing all pertinent information for ordering the *Handbook*.

Source: Emily W. Templeton
Code Development Unit

Solar Energy – Not Exempt from Fees

N.J.S.A. 52:27D-130.2 (P.L. 1985, c. 85) of the Uniform Construction Code (UCC) Act exempts "solar energy heating and cooling systems" from construction permit fees and surcharges. This type of system is defined in the statute as "a system which is certified as eligible for an exemption from property taxation by the Department of Community Affairs, pursuant to P.L. 1977, c. 256 (C. 54:4-3.113 et seq.). This is an obsolete provision in the UCC Act. Since the expiration of P.L. 1977, c. 256 on December 31, 1987, no solar energy heating or cooling systems have been certified as eligible for a property tax exemption, thereby no longer exempting these systems from construction permit fees and surcharges.

If you have questions on this matter, feel free to contact the Code Assistance Unit at (609) 984-7609.

Source: Rob Austin
Code Assistance Unit

Not Using Green Is Not a Violation

There has been some confusion as to whether the wire connector used for equipment grounds has to be the color green.

The answer is “No.”

Wire connectors that are green in color should be listed and labeled by the manufacturer for use as “grounding and bonding wire connectors.” If green wire connectors are to be used, they shall be used only on equipment-grounding conductors.

The 2002 edition of the National Electrical Code (NEC/2002), Section 250.148, “Continuity and Attachment of Equipment Grounding Conductors to Boxes,” states that, where circuit conductors are spliced within a box or terminated on equipment within or supported by a box, any separate equipment-grounding conductors associated with those circuit conductors must be spliced or joined within the box, or to the box with devices suitable for the use. Splices must be made in accordance with Section 110.14(B), “Electrical Connections: Splices,” which provides that conductors must be spliced or joined with splicing devices identified for use, except that insulation shall not be required.

The fault on the equipment-grounding conductor will not be greater than that of the phase conductors. Therefore, wire connectors other than green can be used for equipment-grounding conductors, provided that the connector is listed and labeled for the number and size of the conductors being spliced.

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

Source: Suzanne Borek
Code Assistance Unit

Rain-Tight or Not?

Underwriters Laboratories, Inc. (UL) has pulled the listing and labeling of electrical metallic tubing (EMT) compression connectors and couplings that characterize the fittings as “rain-tight.” This is because water penetrates the fittings and accumulates in the enclosures to which the conduit is connected.

The 2002 edition of the National Electrical Code, Section 358.42, “Couplings and Connectors,” provides that, when installed in wet locations, couplings and connectors shall be of the rain-tight type.

UL has explained that, if the manufacturer’s installation instructions state that the fitting is rain-tight, then it can be used for such application. However, UL has recently provided information that Bridgeport EMT compression fittings in ½ inch, ¾ inch, and 1 inch only are listed and labeled as rain-tight for wet locations.

Therefore, if the compression fittings are not included in the list above, even if they are listed and labeled as rain-tight, then they shall not be approved for installation in a wet location.

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

Source: Suzanne Borek
Code Assistance Unit

The following article was printed in November 2003 by UL Regulatory Authorities for www.ul.com and has been reprinted by permission here for readers of the Construction Code Communicator.

Does UL List Any “Raintight” Compression Type EMT Fittings for Use in Wet Locations?

(Updated November 13, 2003)

UL offers Listing service for “raintight” compression type EMT fittings under the product category Electrical Metallic Tubing (EMT) Fittings (FKAV) located on page 32 of the 2003 General Information Directory for Electrical Equipment (White Book).

However, UL recently conducted a study to determine the reliability of “raintight” compression fittings to consistently comply with the wet location test criteria. Based on the results of the study, UL initiated a more stringent follow up test program to assure these products consistently exclude water to maintain their “rain tight” marking.

Effective March 2002, manufacturers of UL Listed “raintight” (wet location) compression type EMT fittings were required to comply with the more stringent follow up test requirements. If the manufacturers of these fittings did not comply with the new requirements, they were no longer authorized to mark their UL Listed fittings with the “Raintight” marking.

As of November 2003, only one manufacturer is authorized to mark its Listed compression type EMT fittings with the “Raintight” marking. Bridgeport Fittings Inc. has its 250 and 260 Series with RT Suffix connectors and

couplings in the ½, ¾, and 1 inch trade size Listed for raintight applications.

These fittings are provided with additional sealing rings to exclude water. The instructions on the carton must be followed for proper installation. Look for the “Raintight” marking on the container and the UL Mark on the fitting.

The availability of “raintight” fittings may change as manufacturers redesign their fittings to comply with UL’s new follow-up “raintight” testing. It is imperative to always look for the proper marking on the product and container. If the product is not marked with the UL Listing Mark and the container is not marked “Raintight”, then the fittings have not been Listed for raintight applications. As new “Raintight” Listings are promulgated, www.ul.com will be updated with that information.

Fittings manufactured prior to March 2002 may be used, provided that the manufacturer’s installation instructions state that they are suitable for use as “raintight.” The manufacturer’s instructions must be supplied.

For further information, please contact UL at (631) 271-6200 or go to www.ul.com/regulators.

Source: Suzanne Borek
Code Assistance Unit

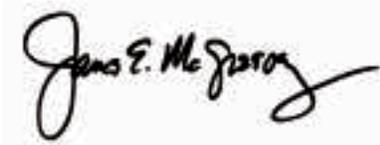
Greetings from Governor James E. McGreevey and Commissioner Susan Bass Levin

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 all good wishes,



James E. McGreevey
Governor



Susan Bass Levin
Commissioner

Susan Bass Levin
NJ Department
of Community Affairs
Commissioner



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