

NEW JERSEY DEPARTMENT OF
COMMUNITY AFFAIRS



In This Issue

Are Exterior Windows and Exterior Doors Required to Comply with the Wind Loads of the One- and Two-Family Dwelling Subcode?  2

Bathroom Exhaust Fans   3

Communicator Index Available on the DCA Web Site 3

Energy -- Can't Download? No Problem! (Corrections to Web Site Links)  8

Energy: Recessed Lighting Fixtures  7

Homeowners Signing Energy Calculations   4

Hotel and Multiple Dwelling Security Requirements 5

Index to the 2003 Construction Code Communicator (Volume 15) 5

Location of Gas Shutoff Valves   4

New Jersey Energy Star® Homes and the Energy Subcode  5

New Jersey Register Adoptions 2

Playground Equipment -- "A Public Service Message" 7

The Atrium  8

Uniform Construction Code Penalties 11

Water Heaters and Bonding  11

Wells Used as the Grounding Electrode  11

When are Soil Borings Required?  1

Wood Preservatives -- What's Up? 1

Wood Preservatives – What's Up?

As most of you know by now, Chromated Copper Arsenate (CCA) treated lumber is no longer registered with the United States Environmental Protection Agency as a wood preservative pesticide. Based on this fact, the use of CCA treated lumber will be eliminated for all but some special products. In place of CCA, Alkaline Copper Quaternary (ACQ) treated lumber is now being used.

The purpose of this article is to inform code users of some of the issues that have been identified as a result of the use of ACQ. Much of the information contained in this article is anecdotal. ACQ treated lumber has not been used for a sufficient length of time to establish requirements. However, the industry has established recommendations regarding the alleged corrosive effects of this product. Much of this information is being provided by the industry and may or may not be provided for proprietary reasons. With all of the disclaimers in place, let's look at the problem:

It has been claimed that ACQ treated lumber corrodes certain steel, iron, and aluminum products at an alarming rate. Because of these allegations, most lumber suppliers and fastener manufacturers are recommending the use of hot-dipped zinc galvanized, triple zinc-coated (electroplated) or stainless steel fasteners and connectors. Additionally, direct contact of ACQ treated lumber with aluminum, steel, or iron products is not recommended. This includes flashing, lag, and anchor bolts. Since there is no building code provision regulating the fastener type when ACQ treated lumber is being used, the Department of Community Affairs recommends that the building subcode official utilize the fastener manufacturer or lumber recommendations. This information should be readily available from the fastener supplier.

It should be noted that the use of CCA is not prohibited; it is merely unavailable for purchase. Projects utilizing CCA treated lumber need not be concerned with this issue. Should you have any questions on this matter, please contact the Code Assistance Unit at (609) 984-7609.

Source: John N. Terry
Code Assistance Unit

When are Soil Borings Required?

The 2000 edition of the International Building Code (IBC/2000), Section 1802, entitled "Foundation and Soils Investigations," details when soil borings are required. Section 1802.2.8, "Building Height," states that soil borings are required for buildings that are more than three stories, or 40 feet or more in height. When borings are required, Section 1802.4.1 provides the number of soil borings that are to be performed.

(continued on page 2)



James E. McGreevey
Governor



Susan Bass Levin
Commissioner

(continued from page 1)

The confusion arises because, in IBC/2000, Section 1802.2.8 has been indented and it gives the appearance that it is a subsection of Section 1802.2.7, "Seismic Design Category D, E, or F." This is not the case. Numerically, Section 1802.2.8 cannot be a subsection of Section 1802.2.7.

Soil borings are required only for buildings that are more than three stories, or 40 or more feet in height and are not based upon seismic design.

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

Source: Marcel Iglesias
Code Assistance Unit

Are Exterior Windows and Exterior Doors Required to Comply with the Wind Loads of the One- and Two-Family Dwelling Subcode?

There seems to be some confusion regarding the design wind-load requirements for exterior windows and doors in residential construction. The confusion arises in buildings or structures that are *not* within the wind-borne debris region. Are exterior openings (windows and doors) that are not in the wind-borne debris regions required to be designed to resist wind load?

Let's look at the code requirements in the 2000 edition of the International Residential Code (IRC/2000) with respect to wind loads on exterior windows and exterior doors.

Section R301.1, entitled "Design," requires that all "buildings and structures, and all parts thereof, be constructed to safely support all loads, including dead loads, live loads, roof loads, flood loads, snow loads, *wind loads*, and seismic loads." This section clearly indicates that all exterior components of a building or structure must be designed to support the wind load.

Section R301.2.1, entitled "Wind Limitation," states "Where loads for windows, skylights, and exterior doors are not otherwise specified, the loads listed in Table R301.2(2), 'Component and Cladding Loads for a Building With a Mean Roof Height of 30 Feet Located in Exposure B,' adjusted for height and exposure per Table R301.2(3),

'Height and Exposure Adjustment Coefficients for Table 301.2(2),' shall be used to determine design load performance requirements for exterior windows and exterior doors." This section specifically addresses all exterior windows and exterior doors, and requires that they be designed to the specific site condition for wind load.

Therefore, all exterior windows and exterior doors must be designed to the applicable wind load.

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

Source: Marcel Iglesias
Code Assistance Unit

New Jersey Register Adoptions

Date: January 20, 2004

Adoption: 36 *N.J.R.* 466(a)

Summary: This adopted amendment makes an administrative correction to the Uniform Construction Code (UCC) at *N.J.A.C.* 5:23-4.9, State Enforcing Agencies — Establishment, to reflect the scope of the Department of the Treasury, Division of Building and Construction's plan review authority with respect to buildings built under the authority of the Division.

Date: January 20, 2004

Adoption: 36 *N.J.R.* 467(a)

Summary: These adopted amendments at *N.J.A.C.* 5:23A include references to P.L. 1995, c. 54 and P.L. 1999, c. 11 to make clear the jurisdiction already assigned by statute to county construction boards of appeals in cases involving municipal utility authority and sewerage authority escrows.

Date: February 2, 2004

Adoption: 36 *N.J.R.* 648(b)

Summary: The adopted amendments at *N.J.A.C.* 5:10-25.2, 25.3, and 25.4 make an administrative correction to the Regulations for Maintenance of Hotels and Multiple Dwellings to replace the references to the "Construction Code Element" with the "Bureau of Construction Project Review," which is the State office responsible for plan review, and update the mailing address for the Bureau of Construction Project Review of the Division of Codes and Standards.

The *Construction Code Communicator* is published three times a year by the New Jersey Department of Community Affairs. Editor: Kristy Paolillo. Layout and design: Mary Ellen Handelman. Address: Division of Codes and Standards, New Jersey Department of Community Affairs, 101 South Broad Street, Post Office Box 802, Trenton, New Jersey 08625-0802. Address changes and subscription requests may be directed to the *Publications Unit*. Comments and suggestions should be sent to the attention of the *Code Development Unit*.

Date: February 2, 2004
Adoption: 36 *N.J.R.* 649(a)
Summary: These adopted amendments at *N.J.A.C.* 5:23-7.2 revise the requirements in the 1998 edition of the International Code Council/American National Standards Institute (ICC/ANSI) A117.1 for reach ranges and electrical outlets for adaptable kitchens in dwelling units. In addition, these adopted amendments delete the requirements for alarms in ICC/ANSI A117.1-1998, and the requirements for ranges and stoves, refrigerators and freezers, and dishwashers for commercial kitchens.

Date: February 2, 2004
Adoption: 36 *N.J.R.* 649(b)
Summary: This adopted amendment at *N.J.A.C.* 5:23-9.3 provides that the installation of battery-powered and plug-in type carbon monoxide alarms is considered ordinary maintenance.

Date: February 17, 2004
Adoption: 36 *N.J.R.* 949(b)
Summary: These adopted amendments at *N.J.A.C.* 5:23-2.14, 3.11, 3.20, 4.4, 4.18, 4.20, 4.24, 5.3, 5.5, 5.19A, 7.3, 7.5, 7.9, 7.10, 9.8, 9.9, 12.2, 12.3, 12.4, 12.5, 12.6, and 12.9 insert "Group R-5" into the UCC, which is the designation for one- and two-family dwellings constructed in conformance with the One- and Two-Family Dwelling Subcode, and is equivalent to "old" Use Group R-4 in the previously adopted One- and Two-Family Dwelling Subcode. In addition, these adopted amendments delete "Use" from "Use Group" to provide consistency with the terminology used in the Building Subcode.

Date: February 17, 2004
Adoption: 36 *N.J.R.* 952(a)
Summary: These adopted amendments at *N.J.A.C.* 5:23-3.11A provide that municipalities in which public schools are located have the right of first refusal to perform the plan review of a proposed construction project provided that the agency is appropriately classified to perform the plan review.

Source: Megan K. Sullivan
 Code Development Unit

Communicator Index Available on the DCA Website

How many times have you dealt with an issue on which you knew there was an article published in the *Construction Code Communicator*? Oftentimes when this happens, you pick up the telephone, call a colleague, and ask them if they remember the article. This could go on for days if the article was published years ago.

Those days are gone! Now available on the Department of Community Affairs' web site is an index of the *Communicator*. Just go to <http://www.state.nj.us/dca/codes/> and click on the link, "View the index of the Construction Code Communicator," and a pdf file will open, which gives you the ability to search for articles by title or by subcode matter.

If you need a copy of a particular article, contact the Code Assistance Unit at (609) 984-7609.

Source: John N. Terry
 Code Assistance Unit

Bathroom Exhaust Fans

The Department of Community Affairs has received many telephone calls pertaining to bathroom ventilation and bathroom exhaust fans for residential dwellings that address the question, "When is a bathroom exhaust fan required?"

There are two types of bathroom ventilation: natural and mechanical. Requirements for both types are contained in the 2000 edition of the International Residential Code (IRC/2000).

IRC/2000, Section R303.3, entitled "Bathrooms," requires that bathrooms be provided with an aggregate glazing area in windows of not less than three square feet and that one-half must be operable. This section also contains an exception which states that, where a mechanical ventilation system is provided, the glazed areas are not required. If mechanical ventilation is provided, the minimum ventilation rates required are 50 cfm for intermittent ventilation and 20 cfm for continuous ventilation. Ventilation air from the space must be exhausted directly to the outside.

Therefore, if a residential building is constructed in accordance with the IRC/2000 and the bathroom includes the aggregate glazing area in windows per Section R303.3 as mentioned above, a bathroom exhaust fan would not be required.

Please note that IRC/2000, Section R303 does not reference the 2000 edition of the International Mechanical Code (IMC/2000) for ventilation. Ventilation requirements for residential buildings are to be in accordance with the IRC/2000 and not the IMC/2000.

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

Source: Thomas C. Pitcherello
 Code Assistance Unit

Location of Gas Shutoff Valves

The Code Assistance Unit has received many questions on the requirements for placement of gas shutoff valves, particularly those for vented decorative appliances and decorative appliances for installation in vented fireplaces.

The question is, “Where may the required equipment shutoff valve for a vented decorative appliance or a decorative appliance for installation in vented fireplaces be located in order to be in compliance with the code?”

The 2000 edition of the International Fuel Gas Code (IFGC/2000), Section 409.5, “Equipment Shutoff Valve,” provides that, when installing a shutoff valve to operate in conjunction with an appliance, the shutoff valve must be located in the same room and within a prescribed distance to the appliance. However, Section 409.5 also includes an exception for vented decorative appliances and decorative appliances for installation in vented fireplaces. This exception would allow the gas shutoff valve to be installed in an area remote from the appliance provided that the valve is readily accessible, does not serve any other equipment, and is permanently identified.

The IFGC/2000 defines a “vented decorative appliance” as “a vented appliance wherein the primary function lies in the aesthetic effect of the flames.” A “decorative appliance for installation in vented fireplaces” is defined as “a vented appliance designed for installation within the fire chamber of a vented fireplace, wherein the primary function lies in the aesthetic effect of the flames.” A “valve – equipment shutoff” is a “valve located in the piping system used to isolate individual equipment for purposes such as service or replacement” (and not used as an emergency shutoff valve).

As stated above, according to the exception provided in Section 409.5, the equipment shutoff valve for the decorative appliances listed may be located in an area remote from the appliance. This exception would allow the shutoff valve to be located in a basement or another area that is not located in the same room as the appliance. This valve, as defined in the IFGC/2000, would be used as a shutoff valve for servicing the equipment; but remember, the valve must be provided with ready access, serve no other equipment, and be permanently identified. Based on the definition of an equipment shutoff valve, the valve would be used for servicing or replacement of the appliance and not used as an emergency shutoff valve.

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

Source: Thomas C. Pitcherello
Code Assistance Unit

Homeowners Signing Energy Calculations

The Code Assistance Unit has received a number of calls from code users with the question, “Who may sign and seal the energy calculations to be submitted with the permit jacket?” For instance, the REScheck energy calculation program prints a signature line for the “Builder/Designer” to sign. The purpose of this article is to provide additional clarification in such instances.

N.J.A.C. 5:23-2.15, “Construction Permits – Application,” at Subsection (e)1vi states that energy calculations showing compliance with the Energy Subcode are to be submitted for all new buildings and for additions to existing buildings. It also states that these calculations for Class I and Class II are to be signed and sealed by the design professional. Calculations for Class III structures may be submitted by the mechanical contractor.

Class I and Class II structures must have energy calculations signed and sealed by a licensed engineer or a registered architect. Class III structures may have a licensed engineer, a registered architect, *or* a mechanical contractor sign and seal the energy calculations. In the case of a single-family homeowner who has prepared his or her own plans, including energy calculations, for the construction of a structure used or intended to be used exclusively as his or her private residence [see *N.J.A.C. 5:23-2.15(e)1ix* and *N.J.A.C. 13:27-3.3(a)*], the homeowner is permitted to sign the energy calculations.

The REScheck software does offer a signature line for the “Builder/Designer” to sign. Keep in mind, the REScheck software is created by the United States Department of Energy for distribution and use throughout the country. So, the design professional/mechanical contractor/owner, as appropriate, signature line is a generic clause in the program for the “design professional” to sign when related to the State of New Jersey.

NOTE: The New Jersey edition of REScheck can be found at www.energycodes.gov.

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

Source: Rob Austin
Code Assistance Unit

Hotel and Multiple Dwelling Security Requirements

In August of 1979, the Department of Community Affairs issued Bulletin No. 79-6, entitled "Hotel and Multiple Dwelling Security Requirements." This bulletin states that the issuance of a Certificate of Occupancy for a new hotel or multiple dwelling is considered equivalent to the Certificate of Inspection issued for the initial hotel or multiple dwelling inspection. This means that the construction department is responsible for verifying that the new hotel or multiple dwelling complies with all of the requirements of the Regulations for Maintenance of Hotels and Multiple Dwellings.

The Uniform Construction Code addresses all of these regulations except one: building security. The text of the Regulations for Maintenance of Hotels and Multiple Dwellings applicable to building security can be found in N.J.A.C. 5:10-19.1, "Hotels," and 19.2, "Multiple Dwellings." It is not necessary for you to go find these requirements; they are reprinted in Bulletin No. 79-6 for your use.

This is not new information. It is a reminder that code officials are responsible for the enforcement of these requirements and that Bulletin No. 79-6 remains active.

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

Source: John N. Terry
Code Assistance Unit

New Jersey Energy Star® Homes and the Energy Subcode

N.J.A.C. 5:23-2.15(e)1vi(1) requires detached one- and two-family residential buildings, and other residential buildings three stories or less in height, to comply with the Energy Subcode by using one of four methods: [1] Submission of New Jersey Energy Star® Homes (NJESH) compliance documentation, [2] Submission of REScheck software printouts (<http://www.energycodes.gov>), [3] Conformance with the prescriptive packages (Bulletin No. 03-2), or [4] Submission of hand calculations (*guidance* can be found in the appendices of the 1993 Building Officials and Code Administrators Energy Conservation Code).

When focusing on NJESH, the local construction department needs to look for only two things. [1] The permit application must contain the "Builder Acknowledgement" form. This form is provided to the permit applicant (usually the building contractor) from the local utility or the utility's consultant (for example, McGrann Associates and EAM Associates). [2] The "Home Energy Rating Scale" (HERS) compliance certificate must be submitted to the construction office before the Certificate of Occupancy (CO) can be issued. HOWEVER, a "passing" final inspection report may be submitted in lieu of the HERS certificate, since this certificate is normally not available until long after the home is ready for its CO. The passing

(continued on page 7)

Index to the 2003 Construction Code Communicator (Volume 15)

<i>Article</i>	<i>Issue</i>	<i>Page</i>
2002 Highlights of the <i>New Jersey Construction Reporter</i>	2	12
Adopted Rule to Extend Deadlines for Licensees Called to Active Duty	2	8
Adoption of the NEC 2002	1	2
Alert! Aluminum Structures	1	3
Barrier Free Subcode: Large Building and Small Building No Longer Apply to Multifamily Residential Structures	3	4
Bathtub Traps/Slab Openings	2	2
Bonding Metal Gas Piping	2	6
Building Safety Conference of New Jersey 2003	2	3
Carbon Monoxide Detectors in One- and Two-Family Dwellings	1	5
Changes in Testing	3	8
Commercial Kitchen Hood Fire Suppression System	1	6
Correction to Division of Codes and Standards Web Address	2	4
DCA Seeks Clarification on Local Penalty Enforcement	2	4
Did You Know the Division of Codes and Standards is on the World Wide Web?	1	5
Discount on ASHRAE Standards and Availability of NFPA Standards	3	1
Does UL List Any "Raintight" Compression Type EMT Fittings for Use in Wet Locations?	3	14
Electrical Subcode Officials, We Need Your Help!	2	1

(continued on page 6)

(continued from page 5)

<u>Article</u>	<u>Issue</u>	<u>Page</u>
Elevator Lobbies Are Back!	2	5
Employment Opportunities on the Web	1	15
Energy – Can't Download? No Problem!	3	11
Energy Code – Residential Basement Wall Insulation Trade-Off	2	1
Farewell to Ashok	1	13
Guidelines for Building Enclosures in Flood-Prone Areas	1	7
Haunted House Regulations Revised!	2	5
Health Care Facilities Plan Review Authority	3	8
Help Prevent the Illegal Development of Environmentally Sensitive Areas in Your Town	3	5
Highlights of the Differences Between IBC/2000 and BOCA/1996	1	4
Index to the 2002 <i>Construction Code Communicator</i> (Volume 14)	1	9
IRC Height and Area Issue is Resolved	3	9
ISO and Training	1	11
ISO is Reevaluating New Jersey's Code Enforcement Offices	1	6
Kiosks – Do They Comply?	2	5
Licensing of Autobody Repair Facilities	1	3
Local Government Ethics Law – Acceptance of Gifts	3	7
Locking Means of Egress Doors Under Special Conditions in Hospitals, Nursing Homes, and Assisted-Living Facilities	1	11
LP Gas Inspections – Temporary Installations	2	7
Manufactured Housing – Permanent Foundation Guide	1	13
New Forms Mirror New Rules . . . However, UCCARS Does Not	2	7
New Jersey Code Adoptions – Elevator Safety Subcode	3	6
<i>New Jersey Register</i> Adoptions	1	9
<i>New Jersey Register</i> Adoptions	2	2
<i>New Jersey Register</i> Adoptions	3	2
Nightclubs vs. Restaurants	1	14
Not Using Green is Not a Violation	3	14
Operation Alert	1	13
Packaged Spa/Hot Tub	3	11
Permits for Lead Hazard Abatement Work	1	12
Phone Number Change – Lead/Asbestos Unit	1	14
Radon Gas Collection	2	10
Rain-Tight or Not?	3	14
Rehabilitation Subcode	2	9
Replacement Windows in Wind-Borne Debris Regions	3	12
Residential Site Improvement Standards Now on the DCA Web Site	3	13
Rob is a New Addition to Our Unit	1	14
Single-Family Homeowner Plans	3	9
Solar Energy – Not Exempt from Fees	3	13
Stacked Washers and Dryers	3	12
Stepped-Down Foundation Walls	2	12
The I-Codes Are Here!	1	1
The Redevelopment Handbook	3	13
Underwriters Laboratory Standard UL 94	1	15
U.S. Census Bureau and DCA Monthly Data Collection	3	4
Vent Piping Size for Fuel Oil Tanks	3	7
What . . . More (Use) Groups?	1	8
What Residential (Use) Group R Means in New Jersey	1	8
Wind	2	10
Windows in Wind-Borne Debris Regions	3	12

(continued from page 5)

final inspection report demonstrates conformance with NJESH and proves to the local code official that the home meets or exceeds the guidelines of NJESH. For more information on NJESH, please visit their web site at www.njenergystarhomes.com.

Note: If the owner or person in responsible charge decides mid-project not to continue with the NJESH program, the residence must still comply with one of the other methods listed above as per the Energy Subcode, *N.J.A.C. 5:23-3.18*.

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

Source: Rob Austin
Code Assistance Unit

Playground Equipment – “A Public Service Message”

As you may have noticed in 1999, the Playground Safety Subcode was added to the Uniform Construction Code (UCC) as *N.J.A.C. 5:23-11*. This new subcode did not create any new enforcement obligations for the code officials. As has always been the case, permits are required for any element of playground construction that is subject to the permit requirements of the UCC. The owners of the playgrounds are responsible for compliance with all of the requirements of these rules. This article is to let you know that the first of the compliance deadlines contained in these rules is approaching. As a public service, you may want to pass the word along to those who manage playgrounds in your town.

The Playground Safety Subcode requires the upgrade and improvement of all playgrounds. **The upgrade of surfaces is required by October 18, 2004.** The definition of a playground is “an improved area designed, equipped, and set aside for play of six or more children, which is not intended for use as an athletic playing field or athletic court, and shall include any play equipment, surfacing, fencing, signs, internal pathways, internal land forms, vegetation, and related structures.”

The compliance deadlines are as follows:

- ◆ **APRIL 18, 2000** -- All newly constructed playgrounds built, and all new and replacement equipment installed, by a governmental, nonprofit, or private for-profit entity shall conform to the requirements of this subcode.
- ◆ **OCTOBER 18, 2004** -- All governmental, nonprofit, and for-profit private entities operating playgrounds shall upgrade their playgrounds by replacement or

improvement as necessary to comply with this subcode for surfacing.

- ◆ **OCTOBER 18, 2007** -- All governmental and for-profit private entities operating playgrounds shall upgrade their playgrounds by replacement or improvement as necessary to comply with this subcode for all other elements, or in the case of governmental entities, at such earlier date as State funds are made available for such purpose.
- ◆ **OCTOBER 18, 2014** -- All nonprofit entities operating playgrounds shall upgrade their playgrounds by replacement or improvement as necessary to comply with this subcode for all other elements.

NOTE: All construction or alteration of playgrounds, playground equipment, and surfacing that are subject to the Playground Safety Subcode shall comply with the applicable provisions of the Barrier-Free Subcode (*N.J.A.C. 5:23-7*). Also, in accordance with *N.J.A.C. 5:23-7.18(d)* and ICC/ANSI A117.1-98, Sections 302 and 303, surfaces of all routes and spaces required to be accessible shall be stable, firm, and slip-resistant. Sand and gravel shall therefore not be used as surfacing materials when new equipment is being installed, or a new safety surface is being put in place, and the Barrier-Free Subcode is applicable.

Playground upgrades and new installations are required to comply with the 1997 edition of the “Handbook for Public Playground Safety” (HPPS), Pub. No. 325, which is produced by the United States Consumer Product Safety Commission and adopted by reference as the Playground Safety Subcode. The HPPS guidelines govern design, installation, inspection, and maintenance of playgrounds and playground equipment. These guidelines can be found on the Internet at: <http://www.cpsc.gov/cpsc/pub/pubs/325.pdf>.

Source: Rob Austin
Code Assistance Unit

Energy: Recessed Lighting Fixtures

Recessed lighting fixtures (RLFs) have been a topic of discussion lately, especially in relation to the Energy Subcode (*N.J.A.C. 5:23-3.18*). Questions have arisen as to what the code requirements are for RLFs and which subcode is responsible for regulating these fixtures.

N.J.A.C. 5:23-3.18 adopts by reference the 1995 edition of the Council of American Building Officials’ Model Energy Code (CABO MEC/1995) as New Jersey’s Energy Subcode of the Uniform Construction Code. Sections

(continued from page 7)

502.3.4 and 602.3.3 of CABO MEC/1995, both entitled “Recessed Lighting Fixtures,” contain requirements for RLFs in relation to the Energy Subcode. The following are the three options for the installation of RLFs when installed in the building envelope. Only one must be followed to meet the requirements of the Energy Subcode:

1. Type IC rated, manufactured with no penetrations between the inside of the recessed fixture and ceiling cavity, and sealed or gasketed to prevent air leakage into the unconditioned space; or
2. Type IC rated or non-IC rated, installed inside a sealed box constructed from a minimum ½-inch-thick gypsum wall board or constructed from preformed polymeric vapor barrier, or other air-tight assembly manufactured for this purpose, while maintaining required clearances of not less than ½ inch from combustible material and not less than three inches from insulation material; or
3. Type IC rated, in accordance with ASTM E 283-91 (Standard Method of Test for Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors), with no more than 2.0 cfm air movement from the conditioned space to the ceiling cavity. The lighting fixture shall be tested at 75 Pa or 1.57 lbs/ft² pressure difference and shall be labeled.

Sections 502.3.4 and 602.3.3 of CABO MEC/1995 are the responsibility of the building subcode official, who inspects RLFs to ensure that they are either insulation cover rated (IC rated), or installed in a sealed box that has the insulation at least three inches from the light fixture. It is the building subcode official’s responsibility to ensure compliance, both in the inspection plan review and inspection plan review stages, because RLFs pose a potential fire hazard if installed incorrectly with insulation. These fixtures also act as chimneys, transferring heat loss and moisture through the building envelope into attic spaces if not installed properly. The heat loss resulting from improperly insulated RLFs can be significant.

NOTE: Electrical subcode officials are responsible for the wiring methods of RLFs.

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

Source: Rob Austin
Code Assistance Unit

Energy – Can’t Download? No Problem! (Corrections to Web Site Links)

The correct web site for free downloads of the energy compliance tools REScheck, New Jersey edition and COMcheck-EZ is www.energycodes.gov. Please make this correction to your *Construction Code Communicator* article found on page 11 of Volume 15, Number 3, Winter 2003.

Also, the links for REScheck and COMcheck Package Generators allow you to generate your own code-compliant packages based on your building location and window-to-wall ratio. They do not print out a compliance certificate showing compliance with the Energy Subcode of the Uniform Construction Code. When speaking to the United States Department of Energy, it was discovered that only REScheck can be used online for compliance; however, the web site to visit is <http://bldgcode.pnl.gov/REScheckWeb/>.

Lastly, the reference to the “1995 Mechanical Energy Code” should read “1995 Model Energy Code.”

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

Source: Rob Austin
Code Assistance Unit

The Atrium

“The Atrium” – A different thing to different people.

To the building user, it may be a grand entrance to a building.

To the building owner, it may be a pronouncement – “Look to see how significant my building is.”

To the architect, it may be a statement of grandeur in a work of art.

To the code official, it may be a challenge in providing life safety to the building users.

Life-safety requirements for atriums have been set forth in the Uniform Construction Code for as long as I have been in code enforcement; and with a number of major code adoptions have come a number of significant changes, each time providing for improved “constructability,” increased life safety, and more usability. Now, since the adoption of the 2000 edition of the International Building Code (IBC/2002), more changes have occurred.

The changes are a result of both the normal code change process and of combining three independent publications into one code. Trade-offs that were only in the Building Officials and Code Administrators National Building Code have been lost, while new and somewhat more stringent requirements have come from other codes. Let's take this time to revisit the requirements for atriums.

First, let's define an atrium. An atrium is a space that is two or more stories in height with a low fire-hazard use, such as an entrance with a lobby.

Second, let's look at what an atrium is *not*. It is not a shaft such as a stair shaft, elevator shaft, or mechanical shaft. It is not a tall room or auditorium with or without mezzanines or balconies. All of these structures have their own code requirements and the requirements set forth for atriums do not apply.

Third, I'd like to discuss the three major code issues concerning the atrium: (1) automatic sprinkler protection, (2) smoke control, and (3) the enclosure of the atrium.

(1) AUTOMATIC SPRINKLER PROTECTION (See IBC/2000, Section 404.3):

Automatic sprinkler protection is required in all atriums and throughout buildings containing atriums, *except* (there's always an exception or two in the code) sprinklers are not required at the ceiling of an atrium where the ceiling of the atrium is 55 feet or greater above the atrium's finished floor, or in portions of the building where those portions are separated from the atrium by two-hour fire-rated assemblies, either vertical or horizontal. A two-hour rating provides adequate separation between sprinklered and unsprinklered areas, just as they provide effective separation between uses. This exception might be used when an addition which contains an atrium is added to an unsuppressed existing building.

(2) SMOKE CONTROL (See IBC/2000, Section 404.4): All atriums are required to have a smoke control system capable of controlling the smoke within the complete volume of the atrium, except for four specific cases, which are indicated in two exceptions.

The first exception is when an atrium complies with Exception 7 of Section 707.2, which sets forth provisions for shaft enclosures. This exception provides four specific items with which the atrium must comply and it must comply with ALL of the items. The four items are:

- (1) It cannot connect more than two floors,
- (2) It is not part of a required means of egress,
- (3) It is not open to a corridor in Group I or R uses,
- (4) It is separated from other atriums or floor openings serving other floors.

The second exception: The atrium is not required to have smoke control when it complies with Exception 2, 8, or 9 of Section 707.2.

- ◆ Exception 2 allows escalator openings and non-egress stairs to have unenclosed floor openings in fully sprinklered buildings.
- ◆ Exception 8 addresses parking garages.
- ◆ Exception 9 addresses floor openings between a mezzanine and the floor below.

(3) THE ENCLOSURE OF THE ATRIUM (See IBC/2000, Section 404.5):

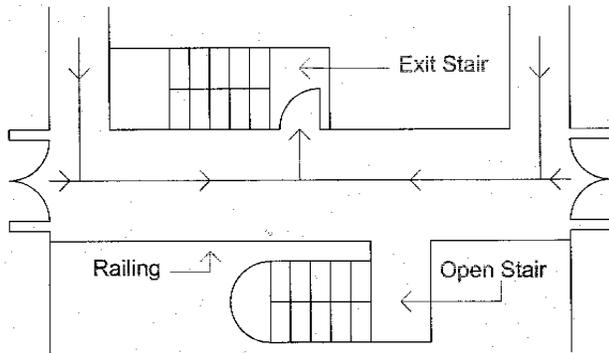
The volume of an atrium is defined by one-hour enclosure assemblies. The enclosure is permitted to be of a tested fire-resistive rated fire barrier or of glass that is completely wetted by an automatic sprinkler system. If the glass exception is used, then the glass must be either set in gasketed frames to allow for the expansion and contraction of the glass when heated by the fire and cooled by the sprinkler system or, as indicated in Section 404.5, Exception 1.2, the glazing may be of glass block construction having a tested rating of $\frac{3}{4}$ of an hour.

The above provisions require any atrium that has an egress element passing through it to have smoke control. This includes a lobby in an atrium when the design requires that the occupants pass through the atrium at the first level to get from an exit stair to the exit discharge, or when the occupants are required to cross the atrium at an upper level to get to an exit stair. (See Figure A.) These requirements also allow the construction of an atrium of more than two stories without requiring a smoke control system, provided the atrium is not open to more than two stories. (See Figure B.) If two or more atriums and/or floor openings are interconnected, then the volume will be determined by the separation or lack of separation from each other.

If more than three floors are penetrated and are open to a combination of atriums and/or floor openings, the maximum number of atriums or floor openings that may be connected together is three. They must be separated from any other atriums or floor openings by construction conforming to the requirement for shaft enclosures. A one-hour assembly is required in buildings

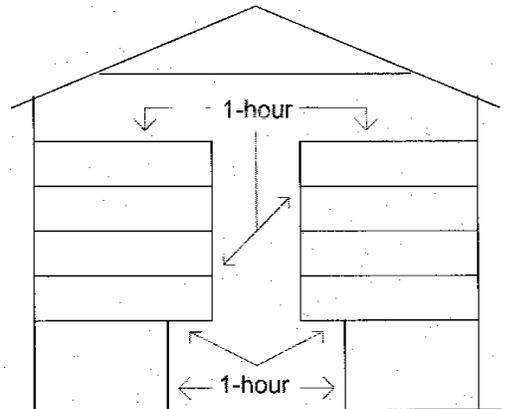
(continued from page 9)

Figure A



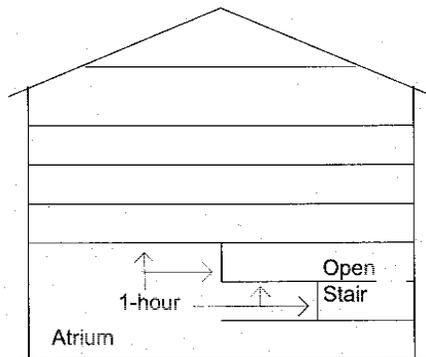
2-STORY ATRIUM

Figure B



OPEN TO 2 STORIES

Figure C



2 HOURS OF SEPARATION REQUIRED
IN PLACE OF 1 HOUR ASSEMBLY

up to three stories and a two-hour assembly for buildings greater than three stories. (See Figure C.) This is required by Section 707.2, "Shaft Enclosure Required," Exception 7.

Care must be taken when determining compliance with the atrium sections because so many exceptions and options exist. If not properly protected, multiple floor openings on connected floors can cause a chimney effect that could block the means of egress and make exiting from a building difficult, if not impossible.

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

Source: Jeffrey Applegate
Code Assistance Unit

Uniform Construction Code Penalties

A recent amendment (P.L. 2003, c. 228) was made to the Uniform Construction Code (UCC) Act (P.L. 1975, c. 217) that increases the maximum penalty that can be issued by local enforcing agencies for violations of the UCC from \$500 to \$2,000. This amendment was signed into law by Governor James E. McGreevey on January 9, 2004 and is immediately enforceable.

There are four conditions under which penalties greater than \$500 may be levied by local enforcing agencies as follows:

- 1) Up to \$1,000 per violation for failure or refusal to comply with any lawful order, unless the failure or refusal to comply is done with the knowledge that the failure or refusal to comply will endanger the life or safety of any person, in which case the penalty shall be up to \$2,000 per violation;
- 2) Up to \$2,000 per violation for failure to obtain a required permit prior to commencing construction, or for allowing a building to be occupied without a Certificate of Occupancy;
- 3) Up to \$2,000 per violation for failure to comply with a Stop Construction Order;
- 4) Up to \$2,000 per violation for willfully making a false or misleading written statement, or willfully omitting any required information or statement in any application or request for approval.

Note: In an occupied building, a code violation involving fire safety, structural soundness, or the malfunctioning of mechanical equipment that would pose a life-safety hazard shall be deemed to endanger the life or safety of a person. In an unoccupied building, a code violation of a requirement intended to protect members of the public who are walking by the property shall be deemed to endanger the life or safety of a person.

Amendments to the UCC to make it conform to the Act will follow shortly. If a violation of the UCC falls under one of the conditions outlined above, code officials should apply the higher penalty.

If you have any questions regarding issuing penalties for violations of the UCC, contact the Office of Regulatory Affairs at (609) 984-7672.

Source: Louis Mraw
Supervisor, Office of Regulatory Affairs

Water Heaters and Bonding

Bonding jumpers are required for water heaters in accordance with the 2002 edition of the National Electrical Code, Section 250.104, entitled "Bonding of Piping Systems and Exposed Structural Steel." Section 250.104(B), "Other Metal Piping," states that "metal piping systems that may become energized shall be bonded to the service equipment enclosure, the grounded conductor at the service, the grounding electrode conductor where of sufficient size, or to the one or more grounding electrodes used."

The bonding jumper shall be sized in accordance with Section 250.122, "Size of Equipment Grounding Conductors," using the rating of the circuit that may energize the piping system. The equipment grounding conductor for the circuit is to be allowed to serve as the bonding means. The points of attachment of the bonding jumper must be accessible.

If, at the time of replacement, an existing water heater has no bonding jumper but has an equipment grounding conductor present, then no bonding jumper would be required to be installed because the equipment grounding conductor is allowed to serve as the bonding means.

However, if there is no bonding jumper or equipment grounding conductor present at the time of replacement, particularly with gas water heaters, then a bonding jumper must be installed and an electrical permit is required.

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

Source: Suzanne Borek
Code Assistance Unit

Wells Used as the Grounding Electrode

The Code Assistance Unit has received questions concerning wells that are used as grounding electrodes. Where a well pump that had served as the sole grounding electrode for the electrical service has been removed, a new grounding electrode and conductor are required to be installed. The installation requires an electrical permit.

If the well did not serve as the grounding electrode and no grounding electrode conductor was connected to it at the time of removal, then a new grounding electrode and conductor are not required to be installed, and an electrical permit is not required. If you have any questions on this matter, you may reach me at (609) 984-7609.

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
Commissioner
NJ Department
of Community Affairs



James E. McGreevey
Governor
State of New Jersey



NEW JERSEY DEPARTMENT OF
COMMUNITY AFFAIRS
Division of Codes and Standards
101 South Broad Street
PO Box 802
Trenton, NJ 08625



FIRST-CLASS MAIL

FIRST CLASS MAIL
US POSTAGE
PAID
Trenton, N.J.
Permit No. 21

NEW JERSEY DEPARTMENT OF
COMMUNITY AFFAIRS



In This Issue

2003 Highlights of the <i>New Jersey Construction Reporter</i>	1
Building Stats Used to Determine Affordable Housing Numbers	4
Concrete-Encased Electrode In an Addition 	5
Construction Code Enforcement and Relocation Assistance	5
Correction to IBC/2000, Section 905.4, Exception 1 	6
Discount on National Standard Plumbing Codes	3
Enclosing an Existing Porch and the Energy Subcode 	6
Exterior Has a Second Testing Site	3
Fire Alarm Systems, Bulletin No. 94-6  	1
Haunted Houses - Revisited  	8
Identification of Windows in Hazardous Locations 	9
Illegal Amusement Rides	9
Is It a Kitchen? 	10
More Rain-Tight Fittings	10
Multi-Town Officials	10
New Jersey Accepts NCPCCI and ICC Exams	7
New Jersey Construction Permit Application on the Internet	9
<i>New Jersey Register</i> Adoptions	2
Parking Below Other Groups 	11
Telecommunication Exemption Certificate 	12
UCC Construction Permits and Septic System Prior Approvals	3
Where, Oh Where Did My "Ordinary Maintenance" Go?	11
Zero Lot Lines	12

The following is from the 2003 annual issue of the New Jersey Construction Reporter, a publication by the Department of Community Affairs that examines construction statistics from building permits and certificates issued by building officials throughout the State. For a complimentary issue, please call John Lago at (609) 292-7898, or e-mail him at jlago@dca.state.nj.us.

2003 Highlights of the *New Jersey Construction Reporter*

This was a good year for New Jersey's construction industry. A strong housing market and State buildings sustained the industry's performance. State buildings refer to a category of construction that includes structures built by State governmental agencies or any of its instrumentalities, like transit and highway authorities, and State colleges and universities. School construction also had a featured role. But, the lead story was the way New Jersey's housing industry performed, especially in the State's big cities.

Estimated construction costs authorized by building permits were \$12.1 billion. This was about the same as last year (0.6 percent more). In real terms, assuming prices grew by 2.3 percent, estimated construction costs declined by 1.7 percent compared to last year.

(continued on page 13)

Fire Alarm Systems, Bulletin No. 94-6

This article is intended to be a heads up for electrical subcode officials and inspectors. Bulletin No. 94-6, entitled "Fire Alarm Systems," comments on plan review and inspection responsibilities for both electrical and fire protection subcode officials. The bulletin points out that plan review is shared between both subcodes, and both subcode officials are required to perform inspections. Electrical subcode officials are required to inspect wiring and wiring location, power supply for the panel, etc. Fire subcode officials are required to inspect the location of the detectors and perform the final acceptance test.

Discussions with some electrical subcode officials indicate that most officials are in fact inspecting the 110V circuitry for fire alarm systems; however, the low-voltage fire alarm systems are another matter.

Low-voltage fire alarm systems require the same inspection as one would perform for 110V circuitry, utilizing Article 760 of the 2002 edition of the National Electrical Code. The wiring is required to be inspected by the electrical subcode official. If you haven't been doing so, now is the time to start.

If you have any questions, please call me at (609) 984-7672.

Source: Gerald Grayce
Office of Regulatory Affairs



James E. McGreevey
Governor



Susan Bass Levin
Commissioner

New Jersey Register Adoptions

Date: April 5, 2004
Adoption: 36 *N.J.R.* 1753(a)
Summary: These adopted amendments establish requirements for the submittal of prototype plans, make changes to the conditions for plans to qualify as prototype plans, clarify the information needed to obtain permits based on the prototype plan filing, and extend the possibility of prototype plan review to structures that are to be built repeatedly in different municipalities throughout the State. In addition to establishing clear standards for prototype plan submittal, these adopted amendments also establish fees and time frames for the issuance of permits based on a released prototype, both by the Department of Community Affairs and by the municipality.

Date: April 5, 2004
Adoption: 36 *N.J.R.* 1755(a)
Summary: These adopted amendments assign enforcement responsibilities for the 1995 edition of the Council of American Building Officials Model Energy Code, which references the 1999 edition of the American Society of Heating, Refrigerating, and Air-Conditioning Engineers Standard 90.1, to building, plumbing, or electrical subcode officials, as appropriate. In addition, these adopted amendments provide a cross-reference to the Building Subcode for permitting requirements for the construction of "hoophouse" or "polyhouse" structures.

Date: April 5, 2004
Adoption: 36 *N.J.R.* 1757(a)
Summary: This adopted amendment makes an administrative correction at *N.J.A.C.* 5:23-3.11(j)6 to replace the reference to "Group R-4" with "Group R-5" for consistency with the definition in the Building Subcode of the Uniform Construction Code (UCC).

Date: April 5, 2004
Adoption: 36 *N.J.R.* 1757(b)
Summary: These adopted amendments provide that the only accepted standards for modular construction in the State are the adopted subcodes of the UCC.

Date: April 5, 2004
Adoption: 36 *N.J.R.* 1758(a)
Summary: These adopted amendments update the provisions of the Rehabilitation Subcode and incorporate changes resulting from the adoption of the 2000 edition of

the International Building Code as the Building Subcode of the UCC.

Date: May 17, 2004
Adoption: 36 *N.J.R.* 2490(a)
Summary: This amendment readopts *N.J.A.C.* 5:12, "Ski Lifts," without change.

Date: May 17, 2004
Adoption: 36 *N.J.R.* 2490(b)
Summary: This adopted amendment makes administrative corrections in the Rehabilitation Subcode at *N.J.A.C.* 5:23-6.3, 6.8, and 6.24A. The adopted amendment at *N.J.A.C.* 5:23-6.3 corrects a typographical error in the definition of "UFC fire barrier." The adopted amendment at *N.J.A.C.* 5:23-6.8 deletes a duplicate cross-reference. Finally, the adopted amendment at *N.J.A.C.* 5:23-6.24A deletes a reference to "Automatic Fire Sprinkler System."

Date: June 7, 2004
Adoption: 36 *N.J.R.* 2733(a)
Summary: The adopted amendments at *N.J.A.C.* 5:18-1.6, "Container Markings," set forth requirements for the size and color of lettering for emergency contact information on liquefied petroleum (LP) gas containers. *N.J.A.C.* 5:18-6.4, "Submittal of Notice of LP-Gas Installations," contains requirements for notifying the Bureau of Code Services of LP-gas installations when plans are not required. *N.J.A.C.* 5:18-10.1, "Licenses Required," amends the insurance requirement for license holders to provide for consistency with the Federal Motor Carrier Safety Administration.

Date: June 21, 2004
Adoption: 36 *N.J.R.* 3055(c)
Summary: The adopted amendments to *N.J.A.C.* 5:11 are the result of the recodification of *N.J.A.C.* 5:40, the Relocation Assistance and Eviction rules, to *N.J.A.C.* 5:11, and reflect the transfer of the Relocation Assistance Program to the Division of Codes and Standards. The adoption also includes editorial amendments.

Source: Megan K. Sullivan
 Code Development Unit

Discount on National Standard Plumbing Codes

In our continuing effort to negotiate with the organizations that publish our adopted codes, the Plumbing-Heating-Cooling Contractors Association (PHCC), publisher of the National Standard Plumbing Code (NSPC), has agreed to provide municipalities with a "member" price for the 2003 NSPC, both the non-illustrated and the illustrated versions.

To receive the discount, the municipality must submit a request on official municipal letterhead and include the inspector's name(s), along with a purchase order or check made payable to PHCC. Each municipality will be entitled to up to four code books at the member price.

Please call PHCC at (609) 499-8070 for the member price, and for shipping and handling charges.

Your order should be mailed to:

PHCC-NJ
1305 MAPLE AVENUE
ROEBLING, NEW JERSEY 08554

ATTENTION: DENISE VOORHEES, EXECUTIVE DIRECTOR

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

Source: Thomas C. Pitcherello
Code Assistance Unit

Experior Has a Second Testing Site

As was promised when the administration of the exams offered by Experior for the National Certification Program for Construction Code Inspectors (NCPCCI) was moved from Prometric, Experior has opened a second testing site in New Jersey.

The address of the site is 1168 White Horse Pike, Hammonton. Directions may be found on the Experior web site, www.experioronline.com.

If you have questions about licensing requirements, please contact the Licensing Unit at (609) 984-7834. If you have questions about the exams themselves, please contact me at (609) 984-7609.

Source: Emily W. Templeton
Code Development Unit

UCC Construction Permits and Septic System Prior Approvals

While continuing to work together with the New Jersey Department of Environmental Protection (DEP), it has been brought to the attention of the Department of Community Affairs (DCA) that local construction permits are being issued without prior approvals, or are inconsistent with approvals from the local health agency (county or municipal) for projects that are connected to septic systems for new construction, new additions, changes of use, or alteration work that increase bedroom counts. Local health agencies administer the rules for septic systems (properly called "individual on-site sewage disposal systems").

There have been a number of situations where homes or other buildings with existing septic systems are expanded in a way that violates either the septic system rules or the Uniform Construction Code (UCC) because of interplay between the two sets of rules. This occurs when either the municipal or county board of health or the UCC officials do not ensure that both sets of rules are satisfied before construction permits are issued.

In collaboration with the DEP, the DCA is seeking to remedy these problems by reminding UCC officials of their duty to require septic system approvals prior to issuing a construction permit for new construction to be served by septic systems. (As a reminder, this topic is discussed in DCA Bulletin No. 79-7, "Septic Systems," which was revised in May 1995. This bulletin reminds UCC officials to carefully compare the septic system approval with the building it serves to ensure the septic system is properly sized.) This issue continues to be a problem if, after an existing building has been expanded, altered, or has had its use changed, it is discovered that the septic system is no longer sufficient for that particular building. This is extremely problematic when there is insufficient room on the property to expand the system, causing a financial hardship on unsuspecting owners.

When you receive a construction application for any property served by a septic system, some quick rules of thumb to help identify potential problems are:

- 1) Check to identify any increase in the footprint of the building, including raised portions of the structure that are enclosed or could impede access to the septic system. These additions could violate the maintenance of setbacks from the septic system.
- 2) Check the reconfiguration of a home when the construction increases the number of bedrooms. Include rooms that could reasonably be anticipated to be used as a bedroom. Any rooms that are finished

(continued from page 3)

in an expansion attic would also require expansion of the septic system.

3) Be aware that any UCC construction application that includes a proposal to install a garbage grinder must be accompanied by an approved design for a septic system for which a garbage grinder has been included. These types of systems are required to have septic tanks sized 50 percent greater and disposal areas 25 percent greater than systems without garbage grinders. Similar requirements may be applied to buildings that propose to use sewage ejector pumps. It is important that the local health department be consulted when garbage grinders or ejector pumps are included in the plan approval.

4) Beware that any increase in the square footage of a commercial property or any substantial changes in use (e.g., a change from a retail space to a restaurant, school, or laundromat) could require an expansion of the septic system. You should alert the local health department when you are aware of such a situation.

Please take special care to review all applications for construction permits involving existing properties that use septic systems for sewage disposal. Prior to issuing a construction permit, you should contact the applicable municipal or county board of health that has jurisdiction over septic systems in your area to determine if there is, or if there could be, a problem. The municipal or county board of health is required to sign a Certificate of Compliance stating that the construction plans conform to the septic system standards prior to the issuance of a Certificate of Occupancy. Remember, it is the responsibility of both agencies -- not one agency or the other -- to review plans for compliance. Because the local code office is the first point of contact, the code official should ensure that prior approval is met. By being proactive and consulting with the health department prior to issuing construction approvals, all parties will know the information that is required prior to problems arising.

By maintaining dialogue between the State agencies, and continuing a collaborative outreach to all building and health officials, we hope to make everyone's job a little easier. If you have any questions, please contact the Code Assistance Unit at (609) 984-7609 or the DEP's Bureau of Nonpoint Pollution Control at (609) 292-0407.

Sources: Thomas C. Pitcherello
Code Assistance Unit
and
Mark Miller
DEP, Bureau of Nonpoint Pollution Control

Building Stats Used to Determine Affordable Housing Numbers

Every ten years, the U.S. government conducts a nationwide census to count people, and to compile important information on where and how we live. In between the decennial censuses, we rely on a variety of indicators to measure population change and to discern trends in settlement patterns. Building permits are a vital resource for this initiative. They are a barometer of an important sector of the economy, the construction industry, and they help us to gauge what is being built and where. Economists, planners, demographers, utility companies, and school administrators are among the users of the important information provided through building permits each month.

Now there is a new user of building permit data. Have you ever heard of the Council on Affordable Housing (COAH)? COAH knows about your work as construction officials and technical assistants. Newly proposed COAH rules would use construction data to determine each town's affordable housing obligation. This data is arguably the single most important housing number in New Jersey. Its derivation depends on construction data from your monthly reports. The new COAH rules propose to link directly how much affordable housing a town would be required to have to the amount of development it allows.

Background

Every municipality in the State must have planning and zoning regulations that allow for its fair share of regional affordable housing needs. COAH was created by the Fair Housing Act of 1985 to determine *fair-share housing obligations*. A series of New Jersey Supreme Court rulings, collectively referred to as the *Mount Laurel* decisions, defined and affirmed this responsibility.

COAH has proposed a significant change in the way it assigns how many affordable houses a municipality must allow for. Under consideration is a two-tiered formula that bases affordable housing obligation on the amount of development in a community. COAH calls this its growth-based methodology. The first part of the formula stipulates an obligation of one new, affordable house or apartment for every ten new, market-rate units. The second part bases the obligation on the number of new jobs created — one affordable dwelling for every 25 jobs. How are these figures calculated? From Certificate of Occupancy (CO) reports submitted by local construction offices.

COAH will rely on housing COs to determine the first part of the formula. Refinements in the construction reporting software will be made to allow construction officials to distinguish affordable dwellings from market-rate houses. This will mean construction officials will have

to report when a CO is issued for an affordable dwelling and when one is issued for a market-rate unit. The second part of the calculation also relies on COs. It looks at the square footage of nonresidential buildings and makes certain assumptions about job growth that vary by nonresidential building uses. For example, the proposed COAH rules assume that a new office building, which is classified as a “B” use or business use, generates three jobs per 1,000 square feet. A one-million square-foot office tower means 3,000 new jobs. After applying the 1:25 rule, this would mean an affordable housing obligation of 120 units.

How this Affects You

There will be a new audience for your monthly construction data. Consider this a compliment to the fine and dependable work you already do. Housing advocates and planners are going to be closely following the COs you issue. It is important to report this information accurately. If you repeat square footage on permit updates, it will cause problems later on when you issue the COs. Don’t double count. It will artificially raise your town’s affordable housing obligation. If you issue a permit for a footing and foundation, and it is your practice to identify only one square foot for this phase of work, be sure that you remember to update the permit and add the balance of the building’s area. Don’t confuse volume with area and mix cubic feet with square feet. Not only will this inflate your building fees, but also under the affordable housing rules currently proposed, it would mean a higher affordable housing obligation. The Department of Community Affairs will be publishing CO data, and making it widely available to planners and housing advocates, so be prepared to have your work reviewed thoroughly.

If you have questions, please feel free to call me at (609) 292-7898, or e-mail me at jlago@dca.state.nj.us.

Source: John Lago
Division of Codes and Standards

Concrete-Encased Electrode In an Addition 

If you are requiring that the rebar in an addition be used as the concrete-encased electrode when no electrical service is being installed or relocated, don’t.

Compliance with the 2002 edition of the National Electrical Code (NEC 2002), Section 250.52(A)(3), “Grounding Electrodes, Electrodes Permitted for Grounding, Concrete-Encased Electrode,” is required for a new electrical service or system.

Uniform Construction Code Bulletin No. 02-2, “Availability of Concrete-Encased Electrodes,” provides information on where and how the electrode must be

installed, as well as the minimum size conductor, as stated in Section 250.52(A)(3).

Where the service is being relocated in an addition and where there is a rebar in the footing in accordance with Section 250.52(A)(3), the concrete-encased electrode is required.

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

Source: Suzanne Borek
Code Assistance Unit

Construction Code Enforcement and Relocation Assistance

The Relocation Assistance Program was recently transferred to the Division of Codes and Standards for administration. Although many municipalities are aware of the Relocation Assistance Program, others are not. This article intends to provide some basic information on this important program.

The general rule for providing relocation assistance states, “whenever a State agency or unit of local government undertakes a program of building code enforcement . . . that causes the displacement of any person, the said State agency or unit of local government shall provide relocation payments and assistance to all lawful occupants who are displaced . . .” [*N.J.A.C. 5:11-2.1(a)*]. In addition to all lawful occupants, the occupants of overcrowded dwelling units who are required by the municipality to relocate are also eligible for this assistance. The Relocation Assistance Program assists the municipality in bearing the expense of these displacements by reimbursing the municipality up to 50 percent of its costs. The Relocation Assistance regulations specify the maximum amount the State may reimburse to a municipality.

The Relocation Assistance Program is not the only means available to the municipality to recover the costs associated with displacement and relocation. The municipality has two other opportunities to recover these costs. First, the municipality must prosecute the property owner for a penalty. Once it is successful in the penalty case, the municipality can file a lien for the cost of all relocation payments at an interest rate of 18 percent per year. In addition to filing a lien, the municipality may bring a civil action against the owner of the property, including any corporate director, officer, or holder of more than 5 percent of the shares, and may recover relocation costs, interest, and attorney’s fees and costs. When the

(continued from page 5)

municipality regains its expenses through either of these means, it must make proportional repayments to the State for any Relocation Assistance reimbursements received.

It is important to emphasize that there is a difference between code enforcement actions undertaken pursuant to the Uniform Construction Code (UCC) “because a building has become unsafe or uninhabitable as a direct result of a natural disaster, soil subsidence, fire, a latent defect or other sudden and unforeseeable occurrence . . .” [N.J.A.C. 5:23-2.32(b)1] and those where the building has become uninhabitable due to delayed maintenance or conditions that could have been foreseen and prevented. Although the municipality may provide assistance to any resident or tenant who is displaced by the imminent hazard provisions of the UCC, only those displacements made in accordance with N.J.A.C. 5:11 are eligible for reimbursement under the Relocation Assistance Program. This actually means that those displacements that take place under the imminent hazard provisions of the UCC (Standard Forms F242 and F245) are not eligible for reimbursement; those that take place under the unsafe structures provisions of the UCC (Standard Form 421) are eligible for reimbursement.

Because the Relocation Assistance Program operates through the submittal and approval of a Working Relocation Assistance Program (WRAP), and because many of these code enforcement relocations are not predictable, the Department of Community Affairs is working on a process that will better serve the municipalities and the residents who are displaced due to code enforcement issues. More information will be available on that initiative in the future.

In the meantime, if you have questions about the Relocation Assistance Program, please contact Emily Templeton or Megan Sullivan at (609) 984-7609.

Source: Michael Ticktin, Esq.
Chief, Legislative Analysis

Correction to IBC/2000, Section 905.4,

Exception 1

It has been brought to the Code Assistance Unit's attention that, upon adoption of the 2000 edition of the International Building Code, the Department of Community Affairs inadvertently omitted some language from Section 905.4 entitled “Location of Class I Standpipe Hose Connections,” Exception 1. The language that was excluded is “are reachable from exit.”

The exception should read as follows:

1. Where the floor areas adjacent to a horizontal exit **are reachable from exit** stairway outlets by a 30-foot (9,144-mm) hose stream from a nozzle attached to 100 feet (30,480 mm) of hose, a hose connection shall not be required at the horizontal exit.

A Notice of Administrative Correction will appear in the August 2, 2004 *New Jersey Register*. Please mark your code books.

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

Source: Marcel Iglesias
Code Assistance Unit

Enclosing an Existing Porch and the Energy

Subcode

What happens when a homeowner wants to enclose his or her existing porch utilizing the existing roof structure? Are energy calculations required?

Enclosing an existing porch that has an existing roof is considered an “alteration” in accordance with the Rehabilitation Subcode at N.J.A.C. 5:23-6.6, “Alterations.” This is NOT considered an “addition,” as per N.J.A.C. 5:23-6.32, because constructing an addition would require an increase in the footprint of the home.

Energy calculations, in accordance with N.J.A.C. 5:23-2.15(e)1vi, must be applied to an addition, which is defined at N.J.A.C. 5:23-6.3 as “an increase in the footprint area of a building or an increase in the average height of the highest roof surface or the number of stories of a building.”

Therefore, the enclosure of a porch utilizing the existing roof is considered an alteration, not an addition, and no energy calculations are required.

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

Source: Rob Austin
Code Assistance Unit

New Jersey Accepts NCPCCI and ICC Exams

Following a thorough evaluation of the exams offered by the National Certification Program for Construction Code Inspectors (NCPCCI) and those offered by the International Code Council (ICC), the Department of Community Affairs has determined that the following exams are equivalent. This means that the candidate may take either the exam offered by NCPCCI through Experior Assessments or the exam offered by the ICC.

The following table does not provide the licensing requirements; it simply gives the name of each exam and the status of equivalency.

You may reach the ICC through its web site at www.iccsafe.org. You may reach Experior through its web site at www.experioronline.com.

If you have questions about the licensing requirements, you may contact the Licensing Unit at (609) 984-7834. If you have questions about the ICC exams, please contact John Terry at (609) 984-7609. If you have questions about the NCPCCI exams administered by Experior, please contact me at (609) 984-7609.



Requirements – May Take either NCPCCI or ICC Exams



LICENSE AREA/LEVEL	NCPCCI EXAM(S) REQUIRED	ICC EXAM(S) REQUIRED
Building RCS Inspector	1A - Building One- and Two-Family 4A - Mechanical One- and Two-Family	B1 - Residential Building Inspector M1 - Residential Mechanical In-
Building ICS	1B - Building, General 4B - Mechanical, General	B2 - Commercial Building Inspector M2 - Commercial Mechanical Inspector
Building HHS	1C - Building, Plan Review	B3 - Building Plans Examiner
Electrical ICS	2A - Electrical, One- and Two-Family 2B - Electrical, General	E1 - Residential Electrical Inspector E2 - Commercial Electrical Inspector
Electrical HHS	2C - Electrical, Plan Review	E3 - Electrical Plans Examiner
Fire Protection ICS tor	3B - Fire Protection, General 4A - Mechanical One- and Two-Family	N7 - Building Fire Protection Inspector M1 - Residential Mechanical Inspec-
Fire Protection HHS iner	3C - Fire Protection, Plan Review	N8 - Building Fire Protection Plans Exam-

(continued from page 7)

LICENSE AREA/LEVEL	NCPCCI EXAM(S) REQUIRED	ICC EXAM(S) REQUIRED
Plumbing ICS Inspector	5B - Plumbing, General 4B - Mechanical, General	N2 - New Jersey Commercial Plumbing M2 - Commercial Mechanical Inspector
Plumbing HHS	5C - Plumbing, Plan Review	N3 - New Jersey Plumbing Plans Examiner
Elevator HHS	6B - Elevator, General	None

Source: Emily W. Templeton

Mechanical Inspector **4A - Mechanical, One- and Two-Family** **M1 - Residential Mechanical Inspector**
One- and Two-Family

4B - Mechanical, General

M2 - Commercial Mechanical Inspector

Haunted Houses - Revisited  

The Department of Community Affairs amended the Uniform Construction Code (UCC) requirements applicable to “Special Amusement Buildings” (haunted houses) last year. Upon further review and discussion between the Division of Codes and Standards and the Division of Fire Safety, the regulations regarding these special uses and occupancies are being revised again, and will be adopted in late September. As you know, special amusement buildings represent a unique hazard and the regulation amendment does not lessen the requirements for these uses. It merely assigns enforcement responsibility to the fire official for the temporary use of a building as a special amusement because fire officials are better equipped to deal with short-term occupancies.

From a UCC standpoint, the amendments are quite simple. At *N.J.A.C. 5:23-2.6*, entitled “Change of Use,” an exception to (b)3 is added. This exception states that the use of an existing building or portion thereof as a special amusement for not more than 15 days in a calendar year is allowed, provided that the fire official has issued a permit. At *N.J.A.C. 5:23-3.2(d)5*, a similar change is made to the commercial farm building regulations, which also limits the use of the commercial farm building as a special amusement to 15 days with the issuance of a Uniform Fire Code (UFC) permit per *N.J.A.C. 5:70*. In both cases, should the owner choose to use the building as a special amusement building for a period longer than 15 days in the calendar year, it is considered a change in use, and

the building is required to comply with the building and fire requirements contained in the Change of Use section of the Rehabilitation Subcode (*N.J.A.C. 5:23-6.31*).

Additionally, an amendment is being made to *N.J.A.C. 5:23-3.14*, “Building Subcode,” to delete the exception to Section 411.4, “Automatic Sprinklers,” of the 2000 edition of the International Building Code. This exception allowed a non-sprinklered, temporary special amusement building of less than 1,000 square feet. Because the UFC will regulate these temporary uses, this exemption is no longer needed. A similar exemption is also being deleted from *N.J.A.C. 5:23-6.31(a)vii* for the same reason.

From a UFC standpoint, the amendments are quite extensive. At *N.J.A.C. 5:70-2.7(a)3xiv*, entitled “Permits Required,” a new section under “Type 1 Permit” is added. This amendment requires a Type 1 permit for the temporary use of any building or portion thereof as a special amusement building for a period not to exceed 15 days in a calendar year. The amendment further states that, if the building is used as a special amusement building for longer than the prescribed period, a Certificate of Occupancy pursuant to the UCC must be issued for the change of use.

Under the Type 1 permit, the building or portion of the building that is being used as a special amusement is required to comply with *N.J.A.C. 5:70-4.16*. There is one exception: the use of a non-sprinklered building or space

is permitted provided that the following conditions are met: (1) the special amusement is limited to 1,000 square feet of total building area or a 1,000-square-foot portion of the building that is separated from the remainder of the building with one-hour rated construction, (2) the maximum exit access travel distance is 50 feet, (3) the special amusement is located on the ground floor, (4) a 20-foot perimeter suitable for firefighting ground operation is provided, and (5) sufficient fire department personnel and apparatus are standing by on the site at all times when the special amusement is occupied. The amendment goes on to state that no variance from the interior finish requirements of *N.J.A.C. 5:70-4.16* is permitted.

The last amendment to the UFC is at *N.J.A.C. 5:70-4.16*. This amendment requires Class I interior finish material for special amusements; Class II interior finish will no longer be acceptable.

The amendments discussed above establish a two-tiered system for code compliance in a special amusement building. Simply put, a building that is used as a special amusement for fewer than 16 days in a calendar year is required to comply with the UFC and any other special amusement is required to comply with the UCC as a change in the character of use.

Should you have any questions on the UCC requirements, please contact the Code Assistance Unit at (609) 984-7609. For questions on the UFC requirements, please contact George Miller of the Division of Fire Safety at (609) 633-6110.

Source: John N. Terry
Code Assistance Unit

Identification of Windows in Hazardous

Locations 

Recently, the Code Assistance Unit has received an influx of telephone calls regarding the labeling requirements for tempered glass installed in hazardous locations in single-family dwellings. Specifically, the issue is whether the tempered glass may be accepted without a label.

Section 308.1 of the International Residential Code, entitled "Identification," clearly states in Exception 1, "For other than tempered glass, labels may be omitted provided the building official approves the use of a certificate, affidavit, or other evidence confirming compliance with the code." Based upon this code section, tempered glass that is installed in a hazardous location **must** be labeled. The use of alternate means of verification of tempered glass, such as a "polarization test," is not based in the code.

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

Source: John N. Terry
Code Assistance Unit

Illegal Amusement Rides

The Department of Community Affairs' Carnival and Amusement Ride Safety Program maintains a hot line that is available 24 hours a day, 7 days a week for reporting incidents regarding carnival or amusement rides. Local code officials who find a ride that does not have a current permit issued by the Department, or a green sticker authorizing operation, should call (609) 292-2099. The hot line service will ask for some information regarding location, name of operator, etc.

The ride program has staff on duty from April through October to respond to such calls and an inspector can be dispatched at any time throughout the year to investigate infractions. Inflatable rides are covered by the carnival and amusement ride safety regulations.

If you have questions about the Carnival and Amusement Ride Safety Program, please call (609) 292-2099.

Source: Michael Triplett
Carnival and Amusement Ride Safety Program
Bureau of Code Services

New Jersey Construction Permit Application on the Internet

In January of 2001, the Department of Community Affairs, Division of Codes and Standards made available at its Internet web site convenient, downloadable versions of the New Jersey Construction Permit Application and Subcode Technical Sections.

In fact, your office may already be receiving permit applications that were obtained in this way. You will recognize them because they will more than likely be printed on plain bond paper and the Subcode Technical Sections will bear the following special instruction to the Internet user in place of the copy distribution at the bottom of the form: "*Applicant: When submitting this form to your Local Construction Code Enforcement Office, please provide one original plus three photocopies.*" In every other way, however, they are exactly the same in content and in

(continued from page 9)

layout as the forms you have always been required to provide to construction permit applicants.

The Department made these forms available in response to the growing demand by New Jersey citizens for access to government services and information beyond traditional delivery methods and normal hours of operation.

If and when you receive a permit application in this format, you may complete the header information (i.e., BLOCK, LOT, QUALIFICATION CODE, SITE, AND PERMIT NO.) on the outside of a fresh, unused Construction Permit Application file folder and simply note somewhere below, "See Enclosed." Then, put the completed Internet-downloaded document within the folder.

Please be reminded that you *must* accept a permit application filed in this way.

To view the Construction Permit Application and related forms on the Internet, visit the Divisions' web site at www.state.nj.us/dca/codes/.

Source: Berit Osworth
Division of Codes and Standards

Is It a Kitchen?

The 2002 edition of the National Electrical Code (NEC/2002), Section 210.8(B)(3), entitled "Ground-Fault Circuit-Interrupter Protection for Personnel, Other Than Dwelling Units, Kitchens," requires that all 125-volt, single-phase, 15- and 20-ampere receptacles installed in kitchens have ground-fault circuit-interrupter (GFCI) protection for personnel.

This means that every receptacle in a kitchen, whether or not it serves a counter top, that is 125 volt, single phase, and 15 or 20 ampere is required to have GFCI protection.

Because the NEC/2002 does not define a kitchen in terms other than dwelling units, the design professional needs to identify kitchens on the drawings. Based on these drawings, appropriate articles of the NEC/2002 should then be applied for the installation.

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

Source: Suzanne Borek
Code Assistance Unit

More Rain-Tight Fittings

Underwriters Laboratories, Inc. (UL) has listed and labeled additional electrical metallic tubing (EMT) compression connectors and couplings as "rain-tight."

O-Z/Gedney, LLC EMT compression connectors and couplings with an SR or SRT suffix in trade sizes 1/2, 3/4, and 1 inch have been listed and labeled as rain-tight.

UL also provides a list of rain-tight, compression-type fittings for EMT under the product category "Electrical Metallic Tubing Fittings (FKAV)" in the UL 2003 General Information for Electrical Equipment Directory (White Book).

For more information on rain-tight, compression type EMT fittings, visit UL's Regulators web page at www.ul.com/regulators/raintight.html.

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

Source: Suzanne Borek
Code Assistance Unit

Multi-Town Officials

As most construction officials know, for several years the Office of Regulatory Affairs has been asking each municipality for rosters that include the actual hours worked by each employee of the local building department.

The purpose of accumulating this information is to track officials who are working in multiple towns, because a large portion of complaints received are generated from part-time towns where the officials have limited hours.

Part of the tracking process entails field visits to each municipality in which a multi-town official works. Regulatory Affairs' investigators review the permit process, paying particular attention to the time frames for plan review and inspection requests. Official designated work hours are also checked and a comparison chart is developed to ensure that the official does not have conflicting hours.

The hours, as determined by the investigator, are then verified for accuracy by comparing them to the rosters, which were provided by the construction official as mentioned above.

Finally, if it is determined by review of the permit activity that there appears to be a significant amount of work in one or more municipalities in which the official is working, a staffing analysis is performed.

What is the purpose of all of this review? The main reason for monitoring officials in multiple towns is to ensure that each individual is capable of adequately enforcing the adopted Uniform Construction Code rules and regulations. Hurried or incomplete inspections can compromise the safety of the intended occupants. This is what we are ultimately trying to ensure will *not* happen.

To a lesser degree, we are attempting to resolve inaccurate or conflicting hours. After all, not even superman can be in two places at the same time.

It should also be noted that having conflicting hours has led to several officials being charged with theft of service, which is a criminal offense. While in most instances there is no criminal intent, everybody should be mindful that actions of this nature have potentially serious consequences.

Our efforts are not intended to be punitive. Therefore, when we discover that an official has conflicting hours or needs more hours, we require that the official correct or expand his or her hours. Whenever an official changes his or her hours, we request that the construction official verify the accuracy of the submission. If this is not possible, then the said official must terminate employment in one or more municipalities.

Any questions concerning this process should be directed to the Office of Regulatory Affairs at (609) 984-7672.

Source: Louis Mraw
Office of Regulatory Affairs

Where, Oh Where Did My “Ordinary Maintenance” Go?

Recently, the Code Assistance Unit has received some telephone calls from people inquiring about the deletion of *N.J.A.C. 5:23-9.3*, “Interpretation: Ordinary Maintenance.” Please be advised that this section was not deleted; it was moved to a more logical place in the Uniform Construction Code (UCC). The requirements are now located at *N.J.A.C. 5:23-2.7(c)*, “Ordinary Maintenance.”

Subchapter 9 provides interpretations of existing UCC regulations. Previously, *N.J.A.C. 5:23-2.7* referred code users to *N.J.A.C. 5:23-9.3* for further interpretation of work that is considered ordinary maintenance. The purpose behind moving the provisions of *N.J.A.C. 5:23-9.3* to *N.J.A.C. 5:23-2.7* was to make the UCC more user friendly. So, as of April 5, 2004, “Interpretation: Ordinary Maintenance” is now located at *N.J.A.C. 5:23-2.7(c)*.

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

Source: Rob Austin
Code Assistance Unit

Parking Below Other Groups 

Sweeping rules, like the Building Subcode, are written to address a broad range of structures, uses, and situations. However, this subcode also includes special requirements to meet specific needs for types of buildings that require more than the average structure, such as high-hazard structures. Requirements for special construction have been in the Building Subcode since the adoption of the Uniform Construction Code in 1977. Such requirements have made construction of these different types of occupancies safer than if they had been constructed using the general requirements of the code. Special requirements may also allow a specific building use to be constructed more economically, while maintaining an appropriate level of safety. Regulations for special construction are located in the 2000 edition of the International Building Code in Section 508, “Special Provisions.”

The purpose of this article is to highlight special construction requirements for the separation of parking garages below other uses.

Section 508 of the Building Subcode allows an enclosed parking garage of Group S-2 to be constructed below buildings that would normally require a large number of parking spaces associated with the building’s use (usually required by the local zoning or planning codes). Possible uses include assembly, residential, business, and mercantile. Interestingly, it also contains provisions for the construction of enclosed parking structures below open parking structures.

Code officials should pay particular attention to the special code provisions for the fire-resistance ratings between the parking use below and the use above, from where the height of the use above is measured, and for the minimum construction type of the parking use. The following provides some of the applicable code provisions:

- ✓ **Fire Resistance of the Floor Separation**
- ✓ Enclosed parking below Group A, B, M, or R (Section 508.2) – 3 hours
- ✓ Open parking below Group A, B, M, or R (Section 508.7) – per Table 302.3.3, “Required Separation of Occupancies (Hours)”
- ✓ Enclosed parking below open parking (Section 508.3) – per the construction type of the garage

(continued from page

11)

- √ Parking structure, open or closed, below a Group R (Section 508.5) – per the construction type of the garage

Where Allowable Height is Measured

- √ Enclosed parking below Group A, B, M, or R (Section 508.2) – from the roof deck of the garage
- √ Open parking below Group A, B, M, or R (Section 508.7) – from the grade plane
- √ Enclosed parking below open parking (Section 508.3) – from the grade plane
- √ Parking structure, open or closed, below a Group R (Section 508.5) – from the roof deck of the garage

Minimum Construction Type of the Garage

- √ Enclosed parking below Group A, B, M, or R (Section 508.2) – Type IA
- √ Open parking below Group A, B, M, or R (Section 508.7) – none designated
- √ Enclosed parking below open parking (Section 508.3) – Type I or Type II
- √ Parking structure, open or enclosed, below a Group R (Section 508.5) Type I or, for open-only use, Type IV

As you can see, even though these special provisions appear very similar, they each have unique characteristics. When an applicant indicates that a building is to be constructed per one of these special provisions, ensure that all requirements are met. Do not mix and match special provisions.

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

Source: Jeffrey Applegate
Code Assistance Unit

Telecommunication Exemption Certificate

Does it exist? What does it mean? Who issues it? Is a permit required for telecommunication work?

The **Telecommunication Wiring Exemption Certificate** does exist! It is issued by the Board of Examiners of Electrical Contractors and is used by contractors that install wiring for telecommunication systems, which include telephone and data wiring.

According to the Board of Examiners of Electrical Contractors, “Telecommunications wiring” means wiring

within a premises, either inside or outside a building, for voice and/or data transmission at voltage(s) compatible with the system being installed, and connected to a Federal Communications Commission-recognized communication network at the point of connection provided by the utility providing communication services to the customer. It shall also include the interconnection of data wiring between computers and/or terminals.

A permit is required for telecommunication wiring, and is required to be signed and sealed by a New Jersey licensed electrical contractor or an exempt applicant, the telecommunication exemption certificate holder.

The Uniform Construction Code, at *N.J.A.C. 5:23-2.7*, “Ordinary Maintenance,” Subsection (c)3iii, does not require a permit for the installation of communications wiring in one- or two-family dwellings, or for the alteration/rearrangement of existing communications wiring in other occupancies, provided however that the rearrangement does not involve the penetration of a fire-rated assembly and is not in a hazardous location, as defined in the Electrical Subcode, Chapter 5, entitled “Special Occupancies.”

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

Source: Suzanne Borek
Code Assistance Unit

Zero Lot Lines

In recent years, one development concept that has become widely used is that of zero lot lines. This means that a house can be built without a side yard on one side, provided it is separated from the neighboring house by a side yard on the neighboring house’s lot. Since the exterior fire rating of both houses is a function of the distance between the houses, it is important, prior to approving any such construction, there be assurance that the required side yard will never be built upon, or if it is, that additional fire protection is required.

In order to make sure that this happens, good communication between the construction code enforcement and zoning offices is essential. Construction officials know that a zoning clearance must be obtained before a permit can be issued. Zoning officials should also be made aware that any application for a variance involving construction in a required side yard necessarily involves the construction code enforcement office and notice of any such application should therefore be given to the construction official.

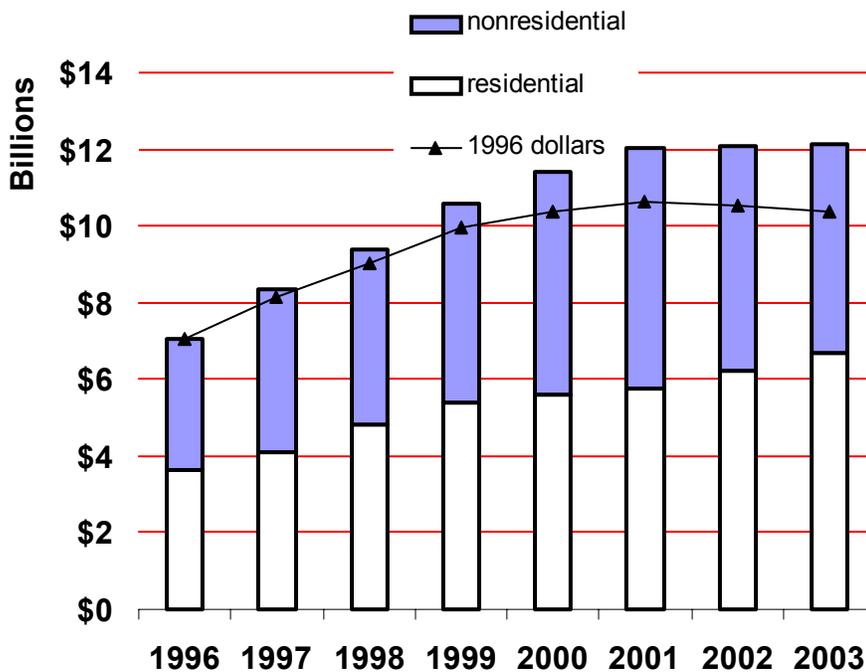
In any new development involving zero lot lines, the planning board, as part of its approval process, should make side yards a condition of approval and require that there be deed restrictions on all lots to make sure the required side yards are never built upon. If a subsequent owner violates a condition of the approval, the zoning officer has authority to cite the violation in the same way that he

or she would cite any other zoning violation. Construction officials should, therefore, make sure their planning boards make required side yards, and any other aspect of the development that would have construction code implications, a condition of any approval.

Source: Michael L. Ticktin
Chief, Legislative Analysis

(continued from page 1)

Estimated Cost of Construction Authorized by Building Permits, 1996-2003



Housing construction accounted for \$6.7 billion. This was 54.9 percent of all activity authorized by permits. Nonresidential structures made up \$5.5 billion, 45.1 percent of all work for the year. Three of the four major construction indicators in the *CONSTRUCTION REPORTER* were at or slightly above last year's levels. Total work was about the same. New houses authorized by permits increased by 582 units, about 1.6 percent. Office space was up by over 483,000 square feet, a 2.5-percent increase compared to last year, but significantly lower than in 2001, when a record 19.1-million square feet of new office space were authorized. That year, Jersey City in Hudson County accounted for 4.1-million square feet of new office space. Only new retail space was down by 21 percent compared to 2002.

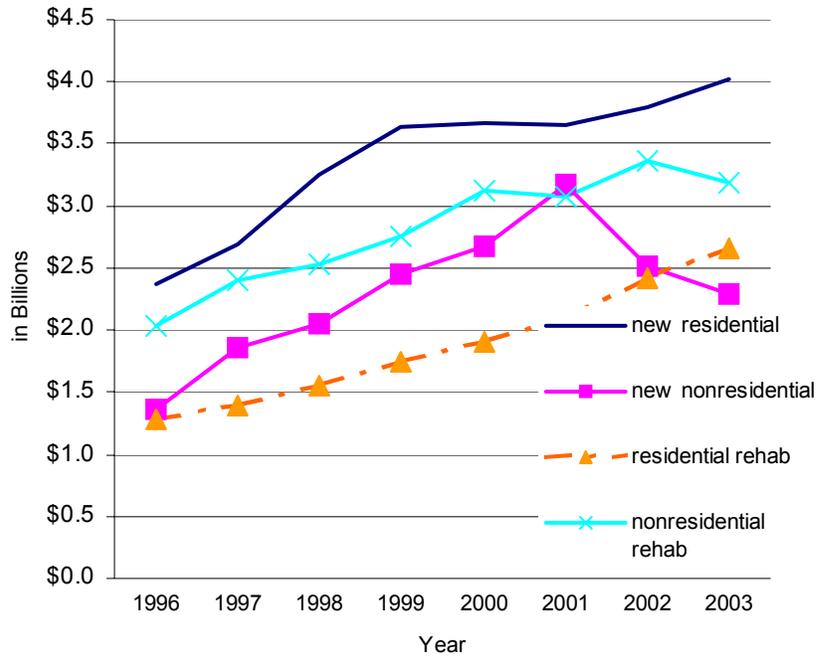
(continued from page 13)

New Jersey Construction Indicators: 1996-2003				
	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
2003	\$12,148,747,807	35,171	9,744,146	6,038,428
<i>Change between 2002 and 2003</i>				
2002-2003	\$68,805,708	582	483,092	-1,522,485
Percent Change	0.6%	1.6%	2.5%	-21.0%
Source: N.J. Department of Community Affairs, 4/7/04				

New home production continued as the most significant force in New Jersey's construction economy. While the number of new houses grew by only 1.6 percent between 2002 and 2003, the estimated construction cost of these houses increased by \$224.4 million, or 5.9 percent. Housing renovations grew even faster. Last year, the estimated cost of all residential alterations and additions was \$2.4 billion. In 2003, it was \$2.7 billion, increasing by \$238.4 million, or 9.9 percent.

The strong housing market compensated for sluggish activity in the nonresidential sector. New, nonresidential buildings accounted for only \$2.3 billion of authorized construction in 2003. This was \$228.5 million less (9.1 percent) than last year. Commercial and other nonresidential rehabilitation also dropped. The estimated cost of rehab work on nonresidential structures declined by \$166.5 million, or 5 percent. This year was the first time in recent history that the amount of money spent to fix up existing housing exceeded the amount authorized to build new office buildings, stores, and other nonresidential structures.

Estimated Cost of Construction Authorized by Building Permits



Activity by Region

Central New Jersey had 36.3 percent of all new houses authorized by permits and 45.2 percent of all new office space. The region had the largest amount of new retail space, 38.2 percent, and accounted for \$4.5 billion, or 36.7 percent, of the estimated cost of construction authorized by permits.

Northern New Jersey had the most work, \$4.6 billion. This was 37.8 percent of all activity. Due in large measure to strong housing markets in the City of Newark in Essex County, the City of Hoboken and Jersey City in Hudson County, and the City of Elizabeth in Union County, northern New Jersey was the location of 32.5 percent of all the new houses in 2003.

Southern New Jersey had the smallest proportion of activity compared with other regions of the State. But, construction work has grown in this area, due in large measure to a strong housing market. Southern New Jersey communities accounted for 21.4 percent of all activity in 2003. This region also had 31.2 percent of all the new houses. In 1998, southern New Jersey had only 17.5 percent of all work in the State and 23.4 percent of the new dwellings.

(continued from page 15)

Major Construction Indicators by Region: 2003				
Region	Estimated Cost of Construction	Authorized Housing Units	Authorized Office Space (square feet)	Authorized Retail Space (square feet)
North	\$4,587,958,818	11,431	3,079,208	2,239,779
Central	\$4,461,322,637	12,752	4,405,090	2,307,208
South	\$2,598,232,120	10,982	1,950,854	1,414,982
State Buildings	\$501,234,232	6	308,994	76,459
New Jersey	\$12,148,747,807	35,171	9,744,146	6,038,428
<i>Percent Distribution by Region</i>				
North	37.8%	32.5%	31.6%	37.1%
Central	36.7%	36.3%	45.2%	38.2%
South	21.4%	31.2%	20.0%	23.4%
State Buildings	4.1%	0.017%	3.2%	1.3%
New Jersey	100.0%	100.0%	100.0%	100.0%
Source: N.J. Department of Community Affairs, 4/7/04				
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				

Leading Role for Big Cities

New Jersey's big cities were top performers. This continued a trend of recent years. No other municipality had more work authorized by permits than Jersey City, with \$322.9 million. Newark ranked second with \$248.1 million. Housing was a key reason for much of the activity in both cities. Newark had the most new houses with 1,730 authorized units. Jersey City ranked second among all localities with 969 new houses.

Other top urban performers were Atlantic City in Atlantic County, Hoboken, and Elizabeth. Most of the work in Atlantic City was hotel and casino related. New housing construction was the driving force, however, in Hoboken and Elizabeth. Nine of the top 15 communities with the most work had over 400 new houses in 2003.

Construction Indicators Top New Jersey Municipalities: 2003					
Municipality	County	Estimated Cost of Construction (dollars)	Authorized Housing Units	Authorized Office Space (square feet)	Authorized Retail Space (square feet)
Jersey City	Hudson	\$322,912,488	969	378,189	83,540
Newark City	Essex	248,116,867	1,730	236,042	16,205
Franklin Twp.	Somerset	177,453,393	569	121,117	6,335
Dover Twp.	Ocean	144,277,904	299	196,846	27,280
Atlantic City	Atlantic	126,745,674	100	6,900	0
Hoboken City	Hudson	117,919,493	599	52,858	83,690
East Brunswick Twp.	Middlesex	110,386,950	340	143,932	3,868
Princeton Twp.	Mercer	108,984,189	13	116,234	12,126
Jackson Twp.	Ocean	106,811,341	590	5,088	12,100
Edison Twp.	Middlesex	99,321,148	91	240,273	20,642
Woodbridge Twp.	Middlesex	95,371,392	110	15,081	355,624
Elizabeth City	Union	95,052,210	649	22,450	0
Ocean City	Cape May	94,779,047	432	99,648	22,851
Lakewood Twp.	Ocean	93,181,492	558	136,814	0
Cherry Hill Twp.	Camden	92,958,402	465	58,675	34,290
Top Municipalities		\$2,034,271,990	7,514	1,830,147	678,551
New Jersey		\$12,148,747,807	35,171	9,744,146	6,038,428
Source: N.J. Department of Community Affairs, 4/7/04					

New House Prices

Another indicator on the strength of the New Jersey housing market is the price of a new home. The median sales price of a new house broke the \$300,000 level in 2003. The median sales price of the 22,226 new houses that began enrollment in a new home warranty program in 2003 was \$307,168. Last year it was \$274,705. This increase of 11.8 percent was the largest annual increase in recent years. New houses in Hunterdon County cost the most. The median sales price in 2003 of a new Hunterdon County house was \$563,308.

(continued from page 17)

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%
2003	22,226	\$307,168	11.8%
1st Quarter 2003	4,465	\$295,000	
2nd Quarter 2003	5,540	\$300,793	2.0%
3rd Quarter 2003	6,091	\$307,950	2.4%
4th Quarter 2003	6,130	\$319,650	3.8%
1st Quarter 2004	4,280	\$323,870	1.3%
Source: N.J. Department of Community Affairs, 4/7/04			



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

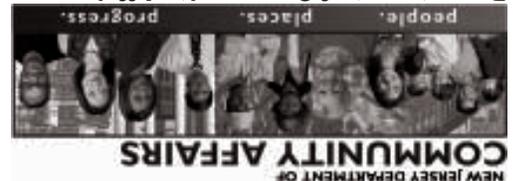
Susan Bass Levin
Commissioner
NJ Department
of Community Affairs



James E. McGreevey
Governor
State of New Jersey



Department of Community Affairs
Division of Codes and Standards
101 South Broad Street
PO Box 802
Trenton, NJ 08625



FIRST-CLASS MAIL

FIRST CLASS MAIL
US POSTAGE
PAID
Trenton, N.J.
Permit No. 21

NEW JERSEY DEPARTMENT OF
COMMUNITY AFFAIRS



In This Issue

23rd Annual Building Safety Conference of New Jersey 2004	3
Alert! Recall of AFCIs	14
Assisted Living: Short-Term Stays	5
Billboards on Public Land Now Subject to DCA's Sole Jurisdiction under the UCC	2
Bonding of Hot Tubs	9
Chimney Certification Form	7
Circular Stair Confusion	5
CO Alarms: One- and Two-Family Detached Homes	7
Code Change Proposal 2005	16
Code Change Proposals for the Rehabilitation Subcode (N.J.A.C. 5:23-6)	10
Conflict of Interest: A Reassurance and a "Heads-Up" ..	7
Contractors' Registration Act Prohibits Issuance of Permits to Unregistered Contractors Not Otherwise Exempted	8
Fire Alarm System Installers -- License/Certification Requirements	8
Fire Protection Requirements for High-Piled Combustible Storage	9
Glow-in-the-Dark Exit Signs	13
How Much is that Panel on the Roof?	14
Low-Voltage Lighting	10
Luminaires in Ductwork	15
Manufactured Homes Installation and Assembly: Common Instances of Nonconformance	10
Modular Homes Built in Vocational/Technical Schools	12
New Jersey Register Adoptions	2
Oil Piping Depth	12
Peer Review is Overworked	12
Publications Inquiries	14
Safety Glazing	15
Ten Volts or More	1
'Tis the Season	4
Update on Revocation of Permits for Uncompleted Buildings	15
What, No Alarm?	9
When are Ice Shields Required?	1

Ten Volts or More

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

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

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

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

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

Source: Suzanne Borek
Code Assistance Unit

When are Ice Shields Required?

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

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

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



Richard J. Codey
Acting Governor



Susan Bass Levin
Commissioner

(continued on page 2)

(continued from page 1)

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

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

Source: Marcel Iglesias
Code Assistance Unit

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

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

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

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

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

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

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

Source: Michael Ticktin, Esq.
Chief, Legislative Analysis

New Jersey Register Adoptions

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

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

(continued on page 4)

The *Construction Code Communicator* is published three times a year by the New Jersey Department of Community Affairs. Editor: Kristy Paolillo. Layout and design: Mary Ellen Handelman. Address: Division of Codes and Standards, New Jersey Department of Community Affairs, 101 South Broad Street, Post Office Box 802, Trenton, New Jersey 08625-0802. Address changes and subscription requests may be directed to the *Publications Unit*. Comments and suggestions should be sent to the attention of the *Code Development Unit*.

23rd ANNUAL BUILDING SAFETY CONFERENCE OF NEW JERSEY 2004

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

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

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

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

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

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



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

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

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

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

(continued from page 2)

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

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

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

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

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

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

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

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

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

Source: Megan K. Sullivan
 Code Development Unit

'Tis the Season

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

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

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

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

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

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

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

Source: Emily W. Templeton
Code Development Unit

Assisted Living: Short-Term Stays 

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

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

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

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

Circular Stair Confusion 

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

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

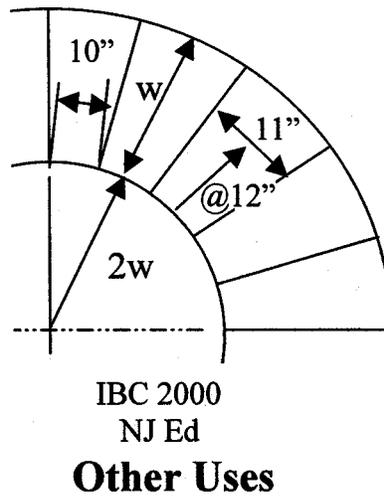
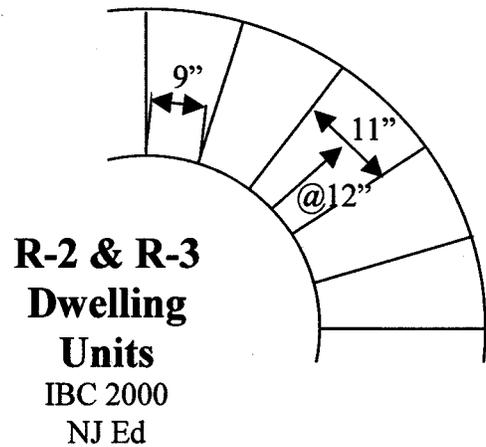
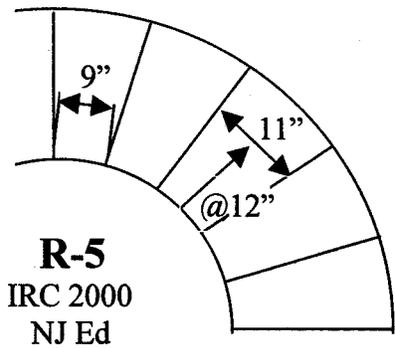
For all buildings except those within Groups R-5 and R-3, and within dwelling units in Group R-2 buildings, the IBC in 1003.3.3.7 requires one additional dimension be taken: the inside radius of the stair curve. This requirement is based on the actual width of the stair. The minimum radius is twice the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

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

(continued from page 5)

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

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



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

Source: Jeff Applegate
Code Assistance Unit

Chimney Certification Form

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

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

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

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

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

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

Source: Thomas C. Pitcherello
Code Assistance Unit

CO Alarms: One- and Two-Family Detached Homes

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

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

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

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

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

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

Source: Rob Austin
Code Assistance Unit

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

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

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

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

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

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

Source: Gerry Grayce
Office of Regulatory Affairs

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

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

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

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

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

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

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

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

Source: Michael Ticktin, Esq.
Chief, Legislative Analysis

Fire Alarm System Installers – License/Certification Requirements

Who can install a fire alarm system in a building?

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

You can reach the appropriate agencies at the following numbers:

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

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

Source: Rob Austin
Code Assistance Unit

What, No Alarm?

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

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

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

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

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

Source: Suzanne Borek
Code Assistance Unit

Fire Protection Requirements for High-Piled Combustible Storage 

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

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

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

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

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

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

Source: John N. Terry
Code Assistance Unit

Bonding of Hot Tubs 

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

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

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

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

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

Source: Rob Austin
Code Assistance Unit

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

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

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

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

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

Source: Emily W. Templeton
Code Development

Low-Voltage Lighting

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

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

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

“**DRY LOCATIONS ONLY**”

OR

“**SUITABLE FOR DAMP LOCATIONS**”

OR

“**SUITABLE FOR WET LOCATIONS**”

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

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

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

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

Source: Suzanne Borek
Code Assistance Unit

Manufactured Homes Installation and Assembly: Common Instances of Nonconformance

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

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

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

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

Supports:

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

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

Anchors and Straps:

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

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

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

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

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

Bottom Board:

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

Floor Joist Assembly:

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

Roof Assembly:

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

Endwall Assembly:

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

Drain Line Support:

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

Crawl Space Ventilation:

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

Crawl Space Access:

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

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

Source: Paul Sachdeva
Industrialized Buildings Unit
Bureau of Code Services

Modular Homes Built in Vocational/Technical Schools

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

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

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

Source: Paul Sachdeva
Industrialized Buildings Unit
Bureau of Code Services

Oil Piping Depth

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

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

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

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

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

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

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

Source: Thomas C. Pitcherello
Code Assistance Unit

Peer Review is Overworked

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

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

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

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

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

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

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

Source: Louis Mraw
Office of Regulatory Affairs

Glow-in-the-Dark Exit Signs

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

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

(continued from page 13)

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

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

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

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

Source: Suzanne Borek
Code Assistance Unit

Publication Inquiries

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

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

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

Source: Cecilia Heredia
Publications Unit

How Much is that Panel on the Roof?

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

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

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

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

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

Source: Suzanne Borek
Code Assistance Unit

ALERT!

Recall of AFCIs

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

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

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

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

Source: John N. Terry
Code Assistance Unit

Update on Revocation of Permits for Uncompleted Buildings

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

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

Source: Michael L. Ticktin
Chief, Legislative Analysis

Safety Glazing

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

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

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

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

Source: Jeff Applegate
Code Assistance Unit

Luminaires in Ductwork

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

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

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

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

Source: Suzanne Borek
Code Assistance Unit

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

Due: **February 11, 2005**

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

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

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

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

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

Section (citation) proposed for change: _____

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

NAME: _____

ORGANIZATION (if any): _____

ADDRESS: _____

TELEPHONE: _____ FAX: _____ E-mail: _____

Proposed Code Change:

Supporting Statement (reason for code change):

NOTES

NOTES

NOTES

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

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

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

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

With regards,



Richard J. Codey
Acting Governor



Susan Bass Levin
Commissioner

Susan Bass Levin
Commissioner
NJ Department
of Community Affairs



Richard J. Codey
Acting Governor
State of New Jersey



Department of Community Affairs
Division of Codes and Standards
101 South Broad Street
PO Box 802
Trenton, NJ 08625



FIRST-CLASS MAIL

FIRST CLASS MAIL
US POSTAGE
PAID
Trenton, N.J.
Permit No. 21