

Construction Code Communicator



State of New Jersey
Jon S. Corzine, Governor
Volume 19 Number 3

Department of Community Affairs
Joseph V. Doria, Jr., Commissioner
Winter 2007

Assembly Groups: Exceptions to be Business Groups

With the adoption of the International Building Code 2006 (IBC/2006), three new exceptions were added to Section 303.1, Assembly Group A. As you can see below, occupancy groups that would normally be considered Group A can now be classified as Group B, dependent on occupant load or area. Section 303.1 states:

“Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering of persons for purposes such as civic, social, or religious functions; recreation, food or drink consumption; or awaiting transportation.

Exceptions:

1. A building or tenant space* used for assembly purposes with an occupant load of less than 50 persons shall be classified as a Group B occupancy. (*first printing errata)
2. A room or space used for assembly purposes with an occupant load of less than 50 persons and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.
3. A room or space used for assembly purposes that is less than 750 square feet in area and is accessory to another occupancy shall be

classified as a Group B occupancy or as part of that occupancy.”

Example of Exception #1: A building or tenant space constructed to house only a karate institution with an occupant load of less than 50 persons. In this situation, occupant load is to be analyzed as “Assembly Without Fixed Seats, Standing Space” from Table 1004.1.1 of the IBC/2006; and if less than 50 persons, the building may be classified as Group B.

Example of Exception #2: A cafeteria/coffee shop with an occupant load of less than 50 persons constructed within an office building. In this situation, occupant load is to be analyzed as “Assembly Without Fixed Seats, Unconcentrated (tables and chairs)” from Table 1004.1.1 of the IBC/2006; and if less than 50 persons, the space may be classified as part of the main Group B.

Example of Exception #3: A conference room less than 750 square feet constructed within an office building.

Note: Errata discussed in this article and other errata can be found at <http://www.iccsafe.org/cs/codes/errata.html>.

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

Source: Rob Austin
Code Assistance Unit

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Bulletin/FTO Update

Are your Uniform Construction Code (UCC) bulletins looking tattered and old? Do some of the code references look a little dated? Well, have I got good news for you! We have revised all UCC bulletins and formal technical opinions (FTOs). Each bulletin and FTO has been placed on the Internet, complete with up-to-date code references and new revised dates or updated code reference dates so you can tell what is old, what is new, or what was updated to reflect current model codes. So please, please, please . . . visit our web site at <http://www.nj.gov/dca/codes> and view, print, download, etc. the revised/updated bulletins and FTOs to update your UCC. The links to the bulletins and FTOs can be found in the middle column under the title "View the . . ." Follow this column alphabetically until you hit the "UCC Extras" box.

NOTE: Bulletins and FTOs that have updated code references will not be republished and will be posted on our web site only. Bulletins and FTOs that needed extensive revisions will be mailed as part of your update package at a later date and then placed on our web site.

Source: Rob Austin
Code Assistance Unit

Service Sink – What Type is Permitted?



There has been some confusion as to the type of sink that is permitted to be used as a service sink and also the minimum waste outlet size.

Referring to the National Standard Plumbing Code 2006, Table 7.21.1, under the "Other" column, one service sink per floor is required. In order to determine what type of fixture is permitted to be used as a service sink, you must refer to the definition of a service sink in Chapter 1, Definitions, Section 1.2, Definition of Terms. A service sink is defined as: "A sink or receptor intended for custodial use that is capable of being used to fill and empty a janitor's bucket. Included are mop basins, laundry sinks, utility sinks, and similar fixtures."

Therefore, any of the sinks listed in the definition of a "service sink" is permitted to be used as a service sink.

Also, to clear up any confusion as to the minimum size waste outlet connection required, it would be based on the type of fixture used as a service sink. If a laundry sink is used, the waste outlet connection must be not less than 1½" nominal size. If a service sink or mop receptor is used, the waste outlet connection shall be not less than 2" nominal size.

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

Source: Thomas C. Pitcherello
Code Assistance Unit

CCC Online

The Department of Community Affairs has decided that the *Construction Code Communicator* will become an online publication available only on the Division of Codes and Standards' web site (<http://www.nj.gov/dca/codes>). This article is to serve as an alert to all subscribers that this will be the last hard copy of the *Communicator*.

Any subscriber who would like to continue to receive a hard copy may exercise that option at an additional cost. However, the publication will be a simpler, black-and-white, stapled document -- not the familiar, two-color, professionally printed newsletter you now receive.

The Department will post new issues of the *Communicator* on our web site and will continue the initiative to post older copies, as well. We believe that this change will serve all code users more effectively and more efficiently.

Source: Emily W. Templeton
Division of Codes
and Standards

The *Construction Code Communicator* is published three times a year by the New Jersey Department of Community Affairs. Editor: Debra McLoughlin. 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*.

Congratulations to New ICC Board of Directors Member, Steven Jones

Steven Jones, Construction Official in Millburn Township, Essex County was recently elected to serve a three-year term on the International Code Council (ICC) Board of Directors. It took four years, but now New Jersey will be represented on the Board of the ICC. The Department of Community Affairs would like to congratulate Steve, and all those that worked on his campaign, on this accomplishment.

Source: John Terry
Supervisor, Code Assistance Unit

CSST Bonding – What is Required?

There is confusion on what is going on with CSST, flexible gas piping, since the manufacturers have been sending out revised installation instructions with their material. The revisions were a result of a lawsuit in which the court stated that the manufacturers must provide a means to protect the CSST from lightning. The revised instructions are requiring that the CSST be bonded to the grounding electrode conductor.

The installation instruction requirements are not in compliance with the currently adopted codes. The code requires that CSST be bonded, not grounded or used as a grounding electrode. Section 250.104(B) of the 2005 National Electrical Code (NEC) states that the equipment grounding conductor is permitted to serve as the bonding means for the gas piping. Otherwise, bonding is required to be from the CSST connector coupling to the water piping. The size of the bonding conductor is based on the rating of the circuit likely to energize the piping system. Table 250.122 in the 2005 NEC provides the conductor size based on the ampacity of the circuit. For example, if there is a gas heater with no electric at all to it and the service to the dwelling is 200 amperes, Table 250.122 states that 6 AWG copper or 4 AWG aluminum is required for the bonding conductor.

The clamps installed on the water and CSST pipes must be listed and labeled in accordance with Section 250.8 of the 2005 NEC. The clamps may be a dissimilar metal, provided they are approved and listed for the use.

In conclusion, no additional bonding is required where there is electric to any gas appliance, since Section 250.104(B) of the 2005 NEC permits the equipment grounding conductor to serve as the bonding means for a gas piping system.

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

Source: Suzanne Borek
Code Assistance Unit

Energy Subcode Mandatory Requirements

The Energy Subcode allows for trade-offs in insulation R-values and window U-values. However, Section 403 of the 2006 International Energy Conservation Code (IECC/2006), reprinted below, contains requirements that are mandatory at all times no matter which compliance path is chosen. This means that, whether a permit applicant chooses to do hand calculations, use REScheck, comply with NJ Energy Star Homes Program, or use a Prescriptive Package, this section will always be enforced as a minimum requirement (see Bulletin No. 07-2 for “low-rise residential” compliance options):

SECTION 403 -- SYSTEMS

403.1 Controls

At least one thermostat shall be provided for each separate heating and cooling system.

403.1.1 Heat Pump Supplementary Heat

Heat pumps having supplementary electric-resistance heat shall have controls that, except during defrost, prevent supplemental heat operation when the heat pump compressor can meet the heating load.

403.2 Ducts

403.2.1 Insulation

Supply and return ducts shall be insulated to a minimum of R-8. Ducts in floor trusses shall be insulated to a minimum of R-6.

EXCEPTION: Ducts or portions thereof located completely inside the building thermal envelope

403.2.2 Sealing

All ducts, air handlers, filter boxes, and building cavities used as ducts shall be sealed. Joints and seams shall comply with Section M1601.3.1 of the International Residential Code (IRC) (e.g., tapes, mastics, gasketing, or other approved closure systems, typically UL 181 tapes).

403.2.3 Building Cavities

Building framing cavities shall not be used as supply ducts.

403.3 Mechanical System Piping Insulation

Mechanical system piping capable of carrying fluids above 105°F (41°C) or below 55°F (13°C) shall be insulated to a minimum of R-2.

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403.4 Circulating Hot-Water Systems

All circulating service hot-water piping shall be insulated to at least R-2. Circulating hot-water systems shall include an automatic or readily accessible manual switch that can turn off the hot water circulating pump when the system is not in use.

403.5 Mechanical Ventilation

Outdoor-air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.

403.6 Equipment Sizing

Heating and cooling equipment shall be sized in accordance with Section M1401.3 of the IRC (e.g., ACCA Manual J).

Please take note that Section 403.2.1 requires R-8 insulation on supply and return ducts outside the thermal envelope. This is especially important for those of you who rely on the REScheck "inspection checklist" for assistance when doing plan review/inspections, as New Jersey uses a modified version of the software based on the 2003 code versus the adopted 2006 code. Here, the "Duct Insulation" category does not follow what the 2006 code states, as seen above.

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

Source: Rob Austin
Code Assistance Unit

Foundation Drains – Where Applicable?

The application of the requirement for foundation drains has been a question of contention lately. Permit applicants have been asking whether the requirements for foundation drains apply to all foundations of one- or two-family homes, or to only certain foundations.

As per *N.J.A.C. 5:23-3.21(c)4.v*, Section 1807, Damproofing and Waterproofing, from the 2006 International Building Code, shall be used in place of Sections R405, Foundation Drainage, and R406, Foundation Waterproofing and Dampproofing, of the 2006 International Residential Code (IRC) when designing a one- or two-family home or townhouse.

To apply Sections R406.4.1 and R406.4.3 of IRC/2006, one has to visit Section R406.1, entitled "Where Required." Here it states in part, "Walls or portions thereof that retain earth, and enclose interior spaces and floors below grade, shall be waterproofed and dampproofed in

accordance with this section." Both crawl spaces and basements retain earth, and enclose interior spaces. Therefore, as per Section R406.4, a drain is to be installed around the foundation perimeter. Slabs on grade typically do not retain earth, so no drain is required for a porch slab or garage slab, for example.

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

Source: Rob Austin
Code Assistance Unit

New Jersey Register Adoptions

Date: August 6, 2007

Adoption: 39 *N.J.R.* 3295(a)

Summary: The adopted amendment at *N.J.A.C. 5:23-2.24(g)* revises filing requirements for work involving certain liquefied petroleum gas (LPG) installations to conform to revisions in *N.J.A.C. 5:18*, the rules of the Department of Community Affairs' (DCA's) LPG regulatory program.

The adopted amendment at *N.J.A.C. 5:23-4.20(c)2.iii(10)* eliminates a cross-reference for fees for electrical work that involves the replacement of service entrance conductors or feeder conductors and replaces it with a restatement of the fees, thereby making it easier for users of the code to quickly determine what the fees are.

The adopted amendment at *N.J.A.C. 5:23-4.20(c)2.iii(13)* would establish fees for installation of photovoltaic equipment for which there are presently no fees.

The adopted amendments at *N.J.A.C. 5:23-12.11* clarify reporting requirements in the event of elevator device malfunction.

The adopted amendment at *N.J.A.C. 5:23-2.15(e)* updates compliance documentation requirements to meet the newly adopted Energy Subcode, the 2006 International Energy Conservation Code for low-rise residential buildings, and the American Society of Heating, Refrigerating, and Air-Conditioning Engineers Standard 90.1/2004 for all other buildings, thus allowing permit applicants to use a version of the software available free of charge from the United States Department of Energy to verify compliance with the requirements of the Energy Subcode (*N.J.A.C. 5:23-3.18*).

Date: October 1, 2007

Adoption: 39 *N.J.R.* 4113(b)

Summary: The adopted amendments revise the responsibilities section and the Radon Hazard Subcode

of the Uniform Construction Code (UCC) by designating the building subcode official as responsible for enforcement of the Radon Hazard Subcode. In addition, the adopted amendments update the Electrical Subcode with current National Electrical Code (NEC) numbering references and delete reference to the Nationally Recognized Testing Laboratory (NRTL) program to synchronize with its deletion from the NEC.

At *N.J.A.C. 5:23-3.4(a)*, the proposed amendment specifies that the building subcode official would have sole enforcement responsibility of the Radon Hazard Subcode, except for the installation of an electrical receptacle, for which the electrical subcode official would have enforcement responsibility as provided at *N.J.A.C. 5:23-10.4(b)14*. An accompanying change at *N.J.A.C. 5:23-10.3(b)* would designate the electrical subcode official's responsibilities for electrical receptacles. At *N.J.A.C. 5:23-3.8(d)2.i*, the proposed amendment would update cross-references to the NEC. The proposed amendment would delete references to the NRTL program because it operates as an Occupational Safety and Health Administration testing program, and not as a construction industry testing program. The proposed amendment would also add language requiring testing laboratories to indicate on a product's markings that the product's approval is based upon applicable United States standards.

At *N.J.A.C. 5:23-3.16(b)7.i*, the proposed amendment would reflect the changes to Section 680.26(C) of the NEC, entitled "Equipotential Bonding Grid." The proposed amendment would add a requirement that equipotential bonding grids be required to conform to the contour of a pool. It would also add a provision to allow equipotential bonding grids to extend either within or under paved walking surfaces, supplanting the existing requirement that grids may extend only under paved walking areas. The proposed amendment would add an exception for pools constructed of nonconductive materials from the requirement that equipotential bonding grids be installed under the bottom of, or vertically along, the walls of all pools.

The adopted amendments revise the Electrical Subcode with changes made in the Tentative Interim Amendment of NFPA 70, NEC/2005 edition. These changes, which deal with equipotential bonding grids in swimming pools, increase protection against stray electrical current. At *N.J.A.C. 5:23-3.16(b)7.ii*, the proposed amendment would reflect the changes to Section 680.26(C)(1) of the NEC by adding bonding requirements for pool decks that are not integral parts of the pool.

The adopted amendments also add a provision to the standards for municipal fees section of the UCC allowing municipalities to establish an hourly fee for the review of substantial amendments or changes to plans that

HVACR Contractor Licensing

On December 20, 2007, new legislation was signed into law (P.L. 2007, c. 211), entitled "The State Heating, Ventilating, Air-Conditioning, and Refrigeration Contracting License Law." This law establishes a State Board of Examiners of Heating, Ventilating, Air-Conditioning, and Refrigeration Contractors that will operate under the purview of the New Jersey Department of Law and Public Safety's Division of Consumer Affairs. The Board will be comprised of nine members: two members of the public, one member from a State department (the Executive Branch of State Government), three members who are practicing Master Heating, Ventilating, Air-Conditioning, and Refrigeration (HVACR) contractors with at least ten years of experience, two members who are mechanical inspectors with at least ten years of experience, and one member who is an HVACR journeyman with at least ten years of experience. All of these members, with the exception of the individual from the Executive Branch, will be appointed by the Governor.

The Board must first be formed which will develop the rules for carrying out the purpose and intent of this new law. The rules will cover the process for applicant examination, the mechanism for evaluation, and the awarding of licenses to individuals who successfully qualify. A list will be published with the names and addresses of all persons statewide who are licensed under this Act. Then, when such rules have been adopted, the Uniform Construction Code (UCC) will be amended to state that a licensed HVACR contractor is required when a permit is issued to perform work covered under this law.

We will keep you apprised of the progress of the Board and notify you when the UCC is amended to incorporate this new requirement.

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

Source: Mary Ellen Handelman
Office of Planning and Operations

(continued from page 5)

have already been released and repeal a provision concerning a determination by the DCA that a code official who works in multiple jurisdictions is not a bona fide municipal employee. At *N.J.A.C. 5:23-4.5* and 4.12, the proposed amendment would delete paragraph (h)2 of *N.J.A.C. 5:23-4.12*, which provides that “a person shall not be deemed a bona fide municipal employee if he holds two or more jobs which are determined by the Department to be incompatible by reason of conflicting time requirements,” and replace it with an amendment to *N.J.A.C. 5:23-4.5* that would make it clear that a code official or inspector may not accept employment in more municipalities than he can properly serve. The reason for this change is that the relevant issue in any such case would be whether the official is enforcing the code properly in all jurisdictions in which he is employed and it is not necessary for the DCA to attempt to monitor the person’s work schedule, which is the responsibility of the employing municipalities, in order to determine whether the code is being properly enforced.

system, installed in accordance with National Fire Protection Association Standard 13, and the exterior openings are protected by an approved water curtain using automatic sprinklers approved for that use.

To apply an example to this, let’s say we have a Group R-2 building to be built at a distance of 3 feet, 1 inch to the property line. As specified in the “unprotected” row of Table 704.8, the exterior wall parallel to the lot line would not be permitted to have any openings based on a fire separation distance, measured in feet, of “greater than 3 to 5.” However, in a building equipped throughout with an automatic sprinkler system, the code user may take advantage of the exception discussed above and apply the “protected” row in this column, allowing 15 percent of the wall to be open.

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

Source: Rob Austin
Code Assistance Unit

Protected Openings vs. Construction

The Department of Community Affairs has received an increasing number of telephone calls regarding the maximum allowable area of openings in an exterior wall, Section 704.8 of the 2006 International Building Code (IBC/2006). The issue with this section is a misunderstanding of the word “protected” from Table 704.8 and how it applies to openings in an exterior wall; this is not the same type of protection referred to in the construction of the structure itself. Here’s the breakdown:

1. **PROTECTED AND UNPROTECTED CONSTRUCTION:** This refers to Chapter 6 of the IBC/2006, Construction Classification (i.e., structural components); this is not a reference to fire-protection systems. For all but Type I construction, “unprotected” construction types are those with zero ratings in Table 601 (i.e., the “B” column); “protected” construction types are those with varied ratings in Table 601 (i.e., the “A” column).
2. **PROTECTED AND UNPROTECTED EXTERIOR WALL OPENINGS:** This refers to Section 704.8, Allowable Area of Openings, of the IBC/2006. This section regulates the maximum area of unprotected or protected openings permitted in an exterior wall in any story set forth in Table 704.8. “Protected” openings are those that meet Section 704.12 of the IBC/2006 (e.g., fire doors or shutters). This section provides an exception which allows openings not to be protected where the building is protected throughout by an automatic sprinkler

Q & A on the New Amendment to the UCC Act: Assignment of Inspectors for Reinspection of Single-Family Homes

What is P.L. 2007, c. 149?

On August 21, 2007, Governor Jon S. Corzine signed Assembly Bill 1323 into law as chapter 149 of the Laws of 2007. This law added the following paragraph d to the State Uniform Construction Code Act at *N.J.S.A. 52:27D-132*:

- d. *When an inspector or team of inspectors finds a violation of the provisions of a construction permit, the code, or other applicable laws and regulations at an owner-occupied, single-family residence, and issues a notice of violation and an order to terminate the violation, the enforcing agency shall require the same inspector or team of inspectors who found the violation to undertake any subsequent reinspection thereof at the premises. When the same inspector or team of inspectors cannot be assigned to undertake the reinspection, the enforcing agency may assign an available inspector, provided the scope of the reinspection shall be limited to the violation for which the reinspection is required. The requirements of this subsection shall not apply to violations of the Plumbing or Electrical Subcodes, or to fire-safety code violations, or to any*

violation of any other subcode that the Department of Community Affairs determines to be a health or safety violation. Nothing in this subsection shall be construed to infringe upon the right of a property owner to request a different inspector, team of inspectors, or supervisor to perform any required reinspection.

What does this law apply to?

1. The law applies only to **owner-occupied, single-family dwellings**. There are no consequences for inspection of any other type of building or structure. Single-family dwellings that are being constructed are not affected, since they are not yet occupied.
2. The law applies only to **reinspections conducted after a violation has been cited**.

What does this law require?

1. **Whenever possible**, the enforcing agency is required to assign the same inspector or team of inspectors who cited the violation. The rationale here is that the inspector or inspectors who cited the violation would know what had been wrong and would therefore know whether or not it had been corrected.
2. If it is not possible to assign the same inspector or team of inspectors, another inspector may be assigned. However, that inspector is limited in the scope of his/her inspection to reinspection of the violation, **unless one of the exceptions applies**. (Note that this limitation applies **only if a new inspector is assigned**. If the enforcing agency assigns the same inspector or team of inspectors, the limitation does not apply.)

What are the exceptions?

1. **Plumbing, electrical, and fire-safety violations** are **never subject** to the limitations imposed by this law.
2. Violations of the **Building Subcode** (or any subcodes other than Plumbing, Electrical, and Fire Protection) are **not subject** to the limitations imposed by this law **if the Department determines the violation to be a health or safety violation**.

What about requests by homeowners for assignment of a different inspector?

1. The law preserves the right of a homeowner to ask that a different inspector be assigned, for

whatever reason. It does not, however, require the enforcing agency to comply with that request.

2. Since any assignment of a new inspector in response to a homeowner's request would not involve a situation where the original inspector(s) **cannot** be assigned, the **limitation established by this law** on what the new inspector(s) may or may not cite **would not apply**.

What, in summary, are the practical consequences of this law?

1. Whenever possible, and unless one of the exceptions applies, the same inspector should be assigned to reinspect any violation that he/she previously cited at an owner-occupied, single-family home.
2. If it is necessary to assign a different inspector in a case where no exception applies, that inspector should report to the construction official any observed violations that were not previously cited and that appear to be health or safety violations. The construction official can then contact the Office of Regulatory Affairs to obtain a determination from the Department as to whether those violations can be cited under the exception for health or safety violations.
3. There are no consequences at all for enforcement of the Plumbing, Electrical, or Fire Safety Subcodes, or for any inspections of premises that are not owner-occupied, single-family homes.

Residential Sprinkler Requirements

N.J.A.C. 5:23-3.14 adopts the 2006 International Building Code (IBC/2006) as the Building Subcode for the design of all new buildings, except Residential Group R-5. *N.J.A.C. 5:23-3.21* adopts the 2006 International Residential Code (IRC/2006) as the One- and Two-Family Dwelling Subcode for the design of all new Residential Group R-5 buildings. As you can see, there is a distinct line drawn here for the design of certain buildings. Because of this, all Residential Group R, except Group R-5, must meet Section 903.2.7 of the IBC/2006. This section requires that an automatic sprinkler system be installed, in accordance with Section 903.3, and provided throughout all buildings with a Group R fire area. The "Group R fire area" this section refers to is all Residential Group R, except Group R-5 because of the reason stated above. This is further backed by Section 310, Group R-5, which states that these structures are to be constructed in accordance with the One- and Two-Family Dwelling Subcode.

Note: As per *N.J.A.C. 5:23-3.21(c)3.i*, Section R300 of the IRC/2006 contains the only requirements for a sprinkler system when designing a One- or Two-Family Dwelling Subcode building with three stories.

Source: Rob Austin
Code Assistance Unit

Special Inspector Certifications

The Department of Community Affairs adopted regulations concerning the certification of special inspectors in November of 2006. The certifications were initially required as of November 6, 2007, but that requirement has been delayed until November 6, 2008 to allow the industry additional time to meet the requirements for certification. In the interim, construction officials should continue to ensure that special inspectors are qualified.

These certifications are required only for special inspections in Class 1 buildings and for the specific areas to be certified. The classifications of these certifications are as follows: concrete placement, reinforced concrete, prestressed concrete, structural steel and bolting, structural welding, exterior insulation finish systems (EIFS), structural masonry, and spray-applied fireproofing.

The requirements for the certifications vary in some ways, but all have an experience and examination requirement. New Jersey licensed Professional Engineers with relevant experience to any one specific certification may be certified upon application and documentation of

that specific experience. Building and Fire Protection Inspectors HHS may qualify for the spray-applied fireproofing special inspector certification, provided they complete the required examination. Building Inspectors HHS may also qualify for the EIFS special inspector certification, provided they possess certification by either the Association of the Wall and Ceiling Industries or the Exterior Design Institute as an EIFS inspector. The other special inspector certifications require experience specific to the area of inspection and certification by examination in that specific area.

Specific information on the certifications can be obtained by contacting the Licensing Unit at (609) 984-7834 or by e-mail: codeslicensing@dca.state.nj.us.

Specific Safety Glazing Areas

This article is to address two specific "hazardous locations" in Section R308.4 of the 2006 International Residential Code and Section 2406.3 of the 2006 International Building Code that require safety glazing in accordance with Consumer Product Safety Commission regulations, 16 CFR 1201.

Item #6 requires safety glazing in individual, fixed or operable panels adjacent to a door, where the nearest vertical edge is within a 24-inch arc of the door in a closed position and the bottom edge of which is less than 60 inches above the floor or walking surface. The 24-inch arc is measured from both sides of a door (side-hinged or sliding).

Item #7 requires safety glazing in an individual, fixed or operable panel that 1) has an exposed area of an individual pane larger than 9 square feet, 2) has a bottom edge less than 18 inches above the floor, 3) has a top edge more than 36 inches above the floor, **and** 4) has one or more walking surfaces within 36 inches horizontally of the glazing. The key here is to apply all four criteria; if one is not met, then item #7 no longer applies.

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

Source: Rob Austin
Code Assistance Unit

Table 601 and Note C

Table 601 in the first printing of the 2006 International Building Code (IBC/2006), and the only printing of the New Jersey edition of the same code, have a note "C" in the Type IIB and IIIB columns for roof construction. However, the roof construction for Type IIB and IIIB is rated at zero hours. This, in turn, has made Note C confusing. The truth of the matter is that **Note C from Table 601 does not apply to Type IIB or Type IIIB construction**, as it is an error. The International Code Council has not yet issued an errata to the IBC/2006; however, subsequent printings of the document, including commentaries, do not include Note C in Type IIB and IIIB for roof construction. Please apply the code without Note C for Type IIB and Type IIIB for roof construction. All other errata can be viewed at:

<http://www.iccsafe.org/cs/codes/errata.html>

Source: Rob Austin
Code Assistance Unit

Useful Tools on the Division's Web Site

Have you been to the Department of Community Affairs, Division of Codes and Standards' web site recently? If not, you should take a look! The Division has been working diligently to update and add useful information and tools to its web site to better serve the public. The web site address is: <http://www.nj.gov/dca/codes> — bookmark it and please use it! Here's a brief overview of what the web site offers:

- ◆ Listing of current codes, including the adoption dates and where to purchase them
- ◆ Links to International Codes; NSPL Code; and American Society of Heating, Refrigerating, and Air-Conditioning Engineers Code (adopted by New Jersey for users to view and use the 2006 codes)
- ◆ Technical amendments (changes) to adopted codes
- ◆ Listing of previous codes and adoption dates
- ◆ Barrier Free Subcode (Subchapter 7)
- ◆ Listing of all municipal code officials throughout the State
- ◆ Radon Hazard Subcode (Subchapter 10) and the municipalities that are subject to its requirements
- ◆ Listing of registered home builders
- ◆ Rehabilitation Subcode (Subchapter 6)
- ◆ Recently proposed rules

- ◆ Recently adopted rules
- ◆ Bulletins and formal technical opinions (with updated code references)
- ◆ *Construction Code Communicator* articles (2002 to present)
- ◆ The entire Uniform Construction Code (updated four times a year)
- ◆ Wind speed maps for those questionable, 100-mph municipalities (re: IRC/2006)

These are just some examples of what the Division's web site contains. A few other key links of interest:

- ◆ Child-care center information (environmental requirements)
- ◆ Home improvement contractor information (current registration)
- ◆ Permit application forms (any municipality can accept these)

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

Source: Rob Austin
Code Assistance Unit

Yesterday's and Today's Model Codes

The chart on the following page displays all the codes the State of New Jersey has used since the introduction of the Uniform Construction Code on January 1, 1977. As you can see, 2007 was a big year for model code adoptions. This chart and other useful information can be viewed on our web site at <http://www.nj.gov/dca/codes>.

Source: Rob Austin
Code Specialist

(continued on page 10)

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New Jersey Model Code Adoptions

Building Subcode	Electrical Subcode	Energy Subcode		Fire Protection Subcode		Mechanical Subcode		Fuel Gas Subcode	Plumbing Subcode	1 & 2 Family Dwelling		Barrier Free (Sub 7)	Rehab (Sub 6)	Effective Date
		BOCA CABO MEC	IECC	ASHRAE Std. 90.1	BOCA	IBC	BOCA			IMC	IFGC			
1975	1975				1975				1975					01-01-77
1976/S					1976/S									12-01-77
1978	1978				1978				1978					10-01-78
1981	1981				1981				1980					05-07-81
1983/AS					1983/AS				1981/82/S					02-22-83
1984	1984				1984				1983					08-06-84
1985/S					1985/S						1983			04-01-85
														07-01-85
1986/AS					1986/AS				1984/85/S					02-03-86
1987	1987				1987									09-22-86
1988/S					1988/S				1987					04-01-87
														09-21-87
														06-20-88
														08-15-88
														09-06-88
1989/AS					1989/AS				1988/S					02-06-89
									1989/S					11-01-89
1990	1990				1990						1989			05-21-90
1991/S					1991/S				1990					07-01-90
														03-04-91
									1991/S					05-20-91
1993	1993				1993				1993					05-01-93
														07-01-95
														01-05-98
1996	1996				1996				1996					07-06-98
	1999													02-07-00
														06-18-01
														09-17-01
														01-16-02
														11-04-02
2000	2002													05-05-03
														01-18-05
														05-01-06
2006														02-20-07
														05-07-07

(Revised 5/7/07)

S = Supplement AS = Accumulative Supplement A = Amendments

High-Intensity Discharge Luminaires

The letter below was mailed to local electrical subcode officials on January 17, 2008.

Dear Electrical Subcode Official:

The Department of Community Affairs is working in conjunction with the New Jersey Department of Environmental Protection (DEP) to publicize requirements for the protection of high-intensity discharge (HID) lamps for the safety of occupants in all buildings.

There are regulations contained in the Uniform Construction Code (UCC) that address the use of HID lamps, which are also called electric discharge lighting, when used in public schools. This includes mercury vapor, high-pressure sodium, and metal halide lamps. The requirements of *N.J.A.C. 5:23-3.11A(c)3* state that all HID lamps are to be of the fail-safe type, which will permanently extinguish within 15 minutes after the outer glass of the bulb is broken, and that all lamps are to be provided with a glass or plastic lens to protect the bulb.

The 2005 National Electrical Code (NEC/2005) only addresses metal halide lamp containment. Section 410.73(F)(5) of the NEC/2005 states luminaires that use a metal halide lamp other than a thick-glass, parabolic reflector lamp (PAR) are to be provided with a containment barrier that encloses the lamp, or are to be provided with a physical means that only allows the use of a lamp that is Type O. For other types of HID lamps, the NEC relies on the manufacturer's installation instructions for the type, use, and protection of the lamps.

In addition to the rules described above that are part of the UCC, the DEP has rules which establish safety requirements for the indoor or outdoor use of mercury vapor or metal halide lamps (*N.J.A.C. 7:28-41*).

The DEP rules address the use of mercury vapor or metal halide lamps and protection from those lamps breaking, and from the harmful ultraviolet (UV) radiation that could be emitted.

There are two types of mercury vapor lamps which exist: the T-rated, self-extinguishing variety and the R-rated, non-extinguishing variety. T-rated bulbs self-extinguish within 15 minutes following breakage of the outer envelope of the bulb, thus limiting exposure to UV radiation. R-rated bulbs, on the other hand, do not self-extinguish upon fracture of the outer envelope. In fact, so long as the discharge tube remains intact, the lamp may continue to burn. R-rated bulbs can still be used if encased in a totally enclosed lighting fixture that absorbs UV radiation if the outer bulb is broken. However, a simple wire cage, as commonly seen around job sites, will not provide adequate shielding.

N.J.A.C. 7:28-41 permits only self-extinguishing lamps to be used in open, high-intensity or electric discharge lighting fixtures. The lamps, as well as the fixtures, are required by the NEC to be listed or labeled for the use. This means that the lamps for the fixture are required to be marked with the appropriate letter corresponding to the listed use. Self-extinguishing type lamps are marked with a "T." Lamps marked with an "O" must still be enclosed if they are not self-extinguishing. Likewise, lamps marked with "MP," "S," or "E" must be totally enclosed if they are not self-extinguishing. In summary, all types of lamps that are not self-extinguishing present a potential hazard and must be completely enclosed.

Please be sure to check the manufacturer's installation instructions, and make building owners and contractors aware of the DEP requirements. Should you need further assistance on this matter, please contact the Code Assistance Unit at (609) 984-7609.

Sincerely,

Cynthia A. Wilk
Director
Division of Codes and Standards

FIRST-CLASS MAIL

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

