In our classroom a wooden "loft area" has been constructed for reading or other special rewards type activity. Are there any special policies or regulations we need to be aware of?

Yes. There are several Building and Fire Code regulations that you need to comply with in order to have a "non-building supplied" structure in your classroom. First, check with local Building Code Officials in order to meet any and all requirements for drawings and permits they may have. Second, construction in a manner consistent with accepted N.C. Building Code requirements regarding proper indoor grade construction materials (no treated lumber, i.e. deck materials) must be used inside an occupied building. Ladders, steps and handrails shall be installed and constructed in accordance with proper dimensions and load requirements. Flooring and walking surfaces shall be installed and constructed in accordance with proper materials, bracing and load requirements. Guard railings and safety gates shall be installed and constructed in accordance with proper dimensions and load requirements as well. In addition N.C. Fire Prevention Codes require that a fire retardant coating (I.e. UL/FM approved fire retardant paint, stain or additive) is applied to reduce the flame spread and smoke generation of materials used. In addition proper documentation of treatment must be maintained and available upon request. Also, with or without proper documentation, local fire officials may still require its removal, which shall be complied with. The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

803.4 Fire-retardant coatings. Required flame spread or smoke-developed classification of surfaces shall be permitted to be achieved by application of approved fire-retardant coatings, paints or solutions to surfaces having a flame spread rating exceeding that permitted. Such applications shall comply with NFPA 703 and the required fire-retardant properties shall be maintained or renewed in accordance with the manufacturer's instructions.

Are "play tents" acceptable in classrooms?

Though not well liked, consideration will be given as long as the "tent" complies with <u>all</u> of the following:

- 1. A manufacturer's label certifying its construction and flame retardant treatment.
- 2. Manufacturer's recommended flame retardant treatment is maintained or re-applied after cleaning or washing of "tent".
- 3. No heat producing devices (I.e. Computers/monitors, battery/electric lamps, radios/recorders/cd-dvd devices etc.) or cords are allowed inside, under or within 36 inches of "tent".
- 4. No more than two students are allowed inside "tent" at a time.
- 5. No zippers, snaps or ties are functional on entry flaps or doors of "tent" at any time.

As in all situations of this type, local fire officials may still require its removal, which shall be complied with.

I have upholstered furniture in my classroom from sources outside the school system for the purpose of creating a relaxed atmosphere in which my students can read and study. Do you see any problems with this?

Yes. Upholstered furniture in classrooms in not recommended. Flammability and sanitation are the major issues here. Let's consider sanitation first. Upholstered furniture can harbor a multitude of problems such as molds, mildews, allergens, bacteria, biological contaminants, lice, insects, pest and the like which are easily transferred from student to student. It's impossible to eliminate these contaminants with household methods. Professional cleaning and decontamination on a regular basis is required in order to eliminate and control these contaminants. Second, we have the fire issue. Residential upholstered furniture was never intended to serve in an educational occupancy. The standards for this type occupancy are much higher than residential use. In order for residential upholstered furniture to be used in an educational occupancy, it shall be professionally treated with an UL/FM approved fire retardant. To achieve these requirements can be time consuming and costly. In addition, with or without proper documentation, local fire officials may still require its removal. The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

805.1.1 Upholstered furniture. Newly introduced upholstered furniture shall meet the requirements of Sections 805.1.1.1 through 805.1.1.3.

805.1.1.1 Ignition by cigarettes. Newly introduced upholstered furniture shall be shown to resist ignition by cigarettes as determined by test conducted in accordance with one of the following:

- 1. Mocked-up composites of the upholstered furniture shall have a char length not exceeding 1.5 inches (38mm) when tested in accordance with NFPA 261.
- 2. The components of the upholstered furniture shall meet the requirements for Class I when tested in accordance with NFPA 260.

805.1.1.2 Heat release rate. Newly introduced upholstered furniture shall have limited rates of heat release when tested in accordance with ASTM E 1537 or California Technical Bulletin 133, as follows:

- 1. The peak rate of heat release for the single upholstered furniture item shall not exceed 80KW.
 - Exception: Upholstered furniture in rooms or spaces protected by an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1.
- 2. The total energy release by the single upholstered furniture item during the first 10 minutes of the test shall not exceed 25 megajoules (MJ).
 - Exception: Upholstered furniture in rooms or spaces protected by an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1.

805.1.1.3 Identification. Upholstered furniture shall bear the label of an *approved* agency, conforming compliance with the requirements of Sections 805.1.1.1 and 805.1.1.2

As an educational experience we like to use incubators to hatch eggs in our classroom. Can you offer any safety advice?

Yes. The NCDPI School Insurance Fund requires that all electrical, gas or heat producing equipment used in educational facilities be UL/FM listed. Equipment not bearing an UL/FM listing shall be removed from service and replaced with properly listed and installed equipment. In addition you should contact the NCDPI Math and Science section for further direction and information in this matter.

The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

Section 605.7 Appliances. Electrical appliances and fixtures shall be tested and *listed* in published reports of inspected electrical equipment by an *approved* agency and installed and maintained in accordance with all instructions included as part of such listing.

Can decorations, plants and teaching materials be displayed or attached to the lay-in tile ceilings of our classrooms?

No. The hanging of materials from ceilings is prohibited. The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

Section 703.3 Ceilings. The hanging and displaying of salable goods and other decorative materials from acoustical ceiling systems that are part of a fire-resistance-rated floor/ceiling or roof/ceiling assembly shall be prohibited.

Can the extra space in boiler, mechanical, electrical rooms and mezzanines or platforms be used for storage of school teaching supplies, files and equipment?

No. Combustible materials cannot be stored in boiler, mechanical or electrical areas. The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

Section 315.2.3 Equipment rooms. Combustible material shall not be stored in boiler rooms, mechanical rooms or electrical equipment rooms.

Can the extra space in my kiln room be utilized for storage of art supplies?

Yes. But only under these certain conditions:

- 1. A distance of 18" minimum must be maintained at all times around the kiln.
- 2. No combustible or noncombustible materials can be stored on top of a kiln at any time.
- 3. No flammable liquids, solvents or aerosols may be stored in kiln rooms at any time.
- 4. Only non-combustible shelving may be used in the kiln room.

What is the Public School Insurance Funds position on appliances in classrooms?

Though appliances in classrooms are not recommended, you should first obtain the approval of your school system's Maintenance Director. A large number of schools are not electrically able to absorb the load that these appliances place on their system. In addition it places an additional expense on school budgets when you add the total number of appliances found system wide in individual classrooms for educator convenience to the energy bill (i.e. less money available for classroom use). Also, it is not acceptable for these appliances to be used on extension cords or portable power strips (surge protectors/multi-strip receptacles, etc.). These appliances shall be plugged directly into a wall outlet. In addition refer to our position statement on this subject. The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

605.7 Appliances. Electrical appliances and fixtures shall be tested and *listed* in published reports of inspected electrical equipment by an *approved* agency and installed and maintained in accordance with all instructions included as part of such listing.

Can student evaluation and tutoring stations or vending machines used to supplement school revenues be placed in corridors outside of the classroom?

This comes down to a "common sense" approach. Tables, chairs, benches, vending machines and the like obviously take up space and create "obstructions" in exit corridors. Vending machines shall not be located in exit corridors or by any exit or egress door as this creates an egress hazard. This type equipment should be located in designated break rooms or concession/cafeteria type areas. Student desk, tables, chairs and the like also create "obstructions" when left unattended. A practical solution would be to utilize media centers, cafeterias (when empty), conference rooms and the like to avoid placing furniture in exit corridors. The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

807.4.1 General. All of the following requirements shall apply to all Group A and E occupancies and Group I-4 day care facilities regulated by Sections 807.4.2 through 807.4.4:

- 1. Explosive or highly flammable materials. Furnishings or decorative materials of an explosive or highly flammable character shall not be used.
- 2. Fire-retardant coatings. Fire-retardant coatings in existing buildings shall be maintained so as to retain the effectiveness of the treatment under service conditions encountered in actual use.
- 3. Obstructions. Furnishings or other objects shall not be placed to obstruct *exits*, access thereto, egress therefrom or visibility thereof.

807.4.3 Group E. The requirements in Sections 807.4.3.1 and 807.4.3.2 shall apply to occupancies in Group E.

807.4.3.1 Storage in corridors and lobbies. Clothing and personal effects shall not be stored in *corridors* and lobbies.

Exceptions:

- 1. *Corridors* protected by an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1.
- 2. *Corridors* protected by an *approved* smoke detection system installed in accordance with Section 907.
- 3. Storage in metal lockers provided the minimum required egress width is maintained.

Chapter 10 Means of Egress

1018.3 Corridor obstruction. The required width of *corridors* shall be unobstructed.

Exception: Doors complying with Section 1005.2

1030.1 General. The means of egress for buildings or portions thereof shall be maintained in accordance with this section.

1030.2 Reliability. Required exit access, exits or exit discharges shall be continuously maintained free from obstructions or impediments to full instant use in the case of fire or other emergency when the area served by such exits are occupied. Security devices affecting means of egress shall be subject to approval of the fire code official.

1030.3 Obstructions. A means of egress shall be free from obstructions that would prevent its use, including the accumulation of snow and ice.

1030.4 Exit Signs. Exit signs shall be installed and maintained in accordance with Section 1011. Decorations, furnishings, equipment or adjacent signage that impairs the visibility of exit signs, creates confusion or prevents identification of the exit shall not be allowed.

1030.5 Nonexit identification. Where a door is adjacent to, constructed similar to and can be confused with a means of egress door, that door shall be identified with an approved sign that identifies the room name or use of the room.

1030.6 Furnishings and decorations. Furnishings, decorations or other objects shall not be placed so as to obstruct exits, access thereto, egress therefrom, or visibility thereof. Hangings and draperies shall not be placed over exit doors or otherwise be located to conceal or obstruct an exit. Mirrors shall not be placed on exit doors. Mirrors shall not be placed in or adjacent to any exit in such a manner as to confuse the direction of exit.

During the year we like to brighten up our school by decorating our classroom and corridor walls and doors, is this acceptable?

No. The decorating of doors and classroom and corridor walls is a common issue throughout the state. Though imaginative and attractive, this practice does create a potential hazard to the overall fire safety picture with respect to schools. The addition of a combustible material (i.e. paper, cloth & plastics) to an egress door, classroom or corridor wall not only degrades the effectiveness of the door or walls fire resistance rating, but also has the potential for introducing flame directly into the room, corridor (or face) of whomever opens it. With this said, the decorating of classroom doors is not allowed and walls (classroom and corridor) shall be kept not to exceed the code references below. The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

803.4 Fire-retardant coatings. The required flame spread or smoke-developed index of surfaces in existing buildings shall be allowed to be achieved by application of *approved* fire-retardant coatings, paints or solutions to surfaces having a flame spread index exceeding that allowed. Such applications shall comply with NFPA 703 and the required fire-retardant properties shall be maintained or renewed in accordance with the manufacturer's instructions.

803.5 Textiles. Where used as interior wall or ceiling finish materials, textiles, including materials having woven or nonwoven, napped, tufted, looped or similar surface shall comply with requirements of this section.

807.1 General requirements. In occupancies in Groups A, E, I and R-1 and dormitories in Group R-2, curtains, draperies, hangings and other decorative materials suspended from walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with section 807.2 or be noncombustible.

807.1.2 Combustible decorative materials. The permissible amount of decorative materials meeting the flame propagation performance criteria of NFPA 701 shall not exceed 10 percent of the specific wall or ceiling area to which it is attached.

Exceptions:

- In auditoriums in Group A, the permissible amount of decorative material meeting the flame propagation performance criteria of NFPA 701 shall not exceed 75 percent of the aggregate wall area where the building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, and where the material is installed in accordance with Section 803.4 of the international building code.
- 2. The amount of fabric partitions suspended from the ceiling and not supported by the floor in Group B and M occupancies shall not be limited.

807.2 Acceptance criteria and reports. Where required to be flame resistant, decorative materials shall be tested by an *approved* agency and meet the flame propagation performance criteria of NFPA 701, or

such materials shall be noncombustible. Reports of test results shall be prepared in accordance with NFPA 701 and furnished to the *fire code official* upon request.

807.4.3.2 Artwork. Artwork and teaching materials shall be limited on the walls of *corridors* to not more than 20 percent of the wall area.

During the school term classrooms and offices sometimes get cold. During these times I use a portable space heater. Is this a problem?

Yes. Though not specifically banned by the fire codes, their use in a classroom or office is definitely a fire hazard. With this in mind, the School Insurance Fund does prohibit the use of portable space heaters in educational facilities. The reasons are many. First, these devices produce a heat source capable of igniting many combustible materials found in offices and classrooms. Secondly, often times the devices are left un-attended while still on. Third, a lot of them are being used improperly such as with, undersized, ungrounded or unapproved extension cords, too close to combustibles or placed under desk, tables and the like. Fourth, some older (and newer) models do not have the required automatic "tip over" shut off switches. Fifth, the energy consumption requirements and strain placed on building electrical systems. Should it be necessary, to have supplemental heat in an office or classroom, the school system Maintenance Director should be contacted for heating corrections, or the proper installation of temporary supplemental heating. The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

605.10 Portable, electric space heaters. Where not prohibited by other sections of this code, portable, electric space heaters shall be permitted to be used in all occupancies other than Group I-2 and in accordance with Sections 605.10.1 through 605.10.4.

Exception: The use of portable, electric space heaters in which the heating element cannot exceed a temperature of 212°F (100°C) shall be permitted in nonsleeping staff and employee areas in Group I-2 occupancies.

605.10.1 Listed and labeled. Only *listed* and *labeled* portable, electric space heaters shall be used.

605.10.2 Power supply. Portable, electric space heaters shall be plugged directly into an *approved* receptacle.

605.10.3 Extension cords. Portable, electric space heaters shall not be plugged into extension cords.

605.10.4 Prohibited areas. Portable, electric space heaters shall not be operated within 3 feet (914 mm) of any combustible materials. Portable, electric space heaters shall be operated only in locations for which they are *listed*.

Section 1403 Temporary Heating Equipment

1403.1 Listed. Temporary heating devices shall be *listed* and *labeled* in accordance with the *International Mechanical Code* or the *International Fuel Gas Code*. Installation, maintenance and use of temporary heating devices shall be in accordance with the terms of the listing.

1403.2 Oil-fired heaters. Oil-fired heaters shall comply with Section 603.

1403.3 LP-gas heaters. Fuel supplies for liquefied-petroleum gas-fired heaters shall comply with Chapter 38 and the *International Fuel Gas Code*.

1403.4 Refueling. Refueling operations for liquid-fueled equipment or appliances shall be conducted in accordance with Section 3405. The equipment or appliance shall be allowed to cool prior to refueling.

1403.5 Installation. Clearance to combustibles from temporary heating devices shall be maintained in accordance with the *labeled* equipment. When in operation, temporary heating devices shall be fixed in place and protected from damage, dislodgement or overturning in accordance with manufacturer's instructions.

1403.6 Supervision. The use of temporary heating devices shall be supervised and maintained only by competent personnel.

I like the effects of aroma and fragrance candles in my classroom, are there problems with using them?

Yes. Open flames are a real hazard, especially in the classroom setting. Not only does the School Insurance Fund prohibit the use of lighted candles, NC Fire Prevention Codes address this issue as well. The reason for this is that they are that they are at times left unattended, placed too close to combustible materials, placed on unstable surfaces or in areas where they can be easily disturbed. Some have even been found lighted on lower shelves of book cases in unattended classrooms. In any of these situations a major hazard to life and property exist from fire. The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

308.3.1 Open-flame decorative devices. Open-flame decorative devices shall comply with all of the following restrictions:

- 1. Class I and Class II liquids and LP-gas shall not be used.
- 2. Liquid- or solid-fueled lighting devices containing more than 8 ounces (237 ml) of fuel must self-extinguish and not leak fuel at a rate of more than 0.25 teaspoon per minute (1.26 ml per minute) if tipped over.
- 3. The device or holder shall be constructed to prevent the spillage of liquid fuel or wax at the rate of more than 0.25 teaspoon per minute (1.26 ml per minute) when the device or holder is not in an upright position.

- 4. The device or holder shall be designed so that it will return to the upright position after being tilted to an angle of 45 degrees from vertical.
 - Exception: Devices that self-extinguish if tipped over and do not spill fuel or wax at the rate of more than 0.25 teaspoon per minute (1.26 ml per minute) if tipped over.
- 5. The flame shall be enclosed except where openings on the side are not more than 0.375 inch (9.5mm) diameter or where openings are on the top and the distance to the top is such that a piece of tissue paper placed on the top will not ignite in 10 seconds.
- 6. Chimneys shall be made of noncombustible materials and securely attached to the open-flame device.
 - Exception: A chimney is not required to be attached to any open-flame device that will self-extinguish if the device is tipped over.
- 7. Fuel canisters shall be safely sealed for storage.
- 8. Storage and handling of combustible liquids shall be in accordance with Chapter 34.
- 9. Shades, where used, shall be made of noncombustible materials and securely attached to the openflame device holder or chimney.
- 10. Candelabras with flame-lighted candles shall be securely fastened in place to prevent overturning, and shall be located away from occupants using the area and away from possible contact with drapes, curtains or other combustibles.
- 308.3.2 Theatrical performances. Where *approved*, open-flame devices used in conjunction with theatrical performances are allowed to be used when adequate safety precautions have been taken in accordance with NFPA 160.

Due to limited electrical receptacles in our classrooms, we have plugged power strips and surge protectors together or are using "multiplug" adapters to provide adequate receptacles for equipment. Is this acceptable?

No. The devices you have mentioned are referred to as "relocatable power taps" and multiplug adapters. When connected as you have described, the safety features do not function as designed thus creating a fire hazard. The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

- 605.4 Multiplug adapters. Multiplug adapters, such as cube adapters, unfused plug strips or any other device not complying with NFPA 70 shall be prohibited.
- 605.4.1 Power tap design. Relocatable power taps shall be of the polarized or grounded type, equipped with overcurrent protection, and shall be *listed* in accordance with UL 1363.

605.4.2 Power supply. Relocatable power taps shall be directly connected to a permanently installed receptacle.

605.4.3 Installation. Relocatable power tap cords shall not extend through walls, ceilings, floors, under doors or floor coverings, or be subject to environmental or physical damage.

Due to limited electrical receptacles in our classrooms, we use an extension cord through the door to an adjacent classroom or other areas to access power. Is this acceptable?

No. This is a very unsafe practice. Not only does it present an OSHA tripping hazard (cords/obstructions in walkways), it also creates an electrical shock /fire hazard as well from either crushing the cord or tearing insulation. In addition, "two wire" extension cords are not allowed in NC Public Schools by the Insurance Fund due to their constant miss-use of being overloaded, plugged together and used with grounded adapters. A request for additional permanent receptacles should be made through your Principal to your Maintenance Director. The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

605.5 Extension cords. Extension cords and flexible cords shall not be a substitute for permanent wiring. Extension cords and flexible cords shall not be affixed to structures, extended through walls, ceilings or floors, or under doors or floor coverings, nor shall such cords be subject to environmental damage or physical impact. Extension cords shall be used only with portable appliances.

605.5.1 Power supply. Extension cords shall be plugged directly into an *approved* receptacle, power tap or multiplug adapter and, except for *approved* multiplug extension cords, shall serve only one portable appliance.

605.5.2 Ampacity. The ampacity of the extension cords shall not be less than the rated capacity of the portable appliance supplied by the cord.

605.5.3 Maintenance. Extension cords shall be maintained in good condition without splices, deterioration or damage.

605.5.4 Grounding. Extension cords shall be grounded when serving grounded portable appliances.

605.9 Temporary wiring. Temporary wiring for electrical power and lighting installations is not allowed for a period not to exceed 90 days. Temporary wiring methods shall meet the applicable provisions of NFPA 70.

Exception: Temporary wiring for electrical power and lighting is allowed during periods of construction, remodeling, repair or demolition of buildings, structures, equipment or similar activities.

605.9.1 Attachment to structures. Temporary wiring attached to a structure shall be attached in an approved manner.

Is it acceptable for me, or to have our vocational or maintenance department, fabricate extension cords with multiple receptacles for us to use?

No. Non UL/FM listed or labeled electrical appliances (this includes extension cords & power taps) are not allowed to be used at any time. The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

605.7 Appliances. Electrical appliances and fixtures shall be tested and *listed* in published reports of inspected electrical equipment by an *approved* agency and installed and maintained in accordance with all instructions included as part of such listing.

The receptacles in our classrooms are not conveniently located for our equipment. In order to supply power, we have attached extension cords and strips to the walls, floors and ceilings in order to reach them. Are we in compliance?

No. In your situation several things could be done.

- 1. If at all possible, you could rearrange the room in order to eliminate the cords and strips.
- 2. If rearrangement is not feasible, request relocation to a more suitable area within your facility.
- 3. Submit a request through your Principal to your Maintenance Director for the installation of additional receptacles in the room.

The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

605.5 Extension cords. Extension cords and flexible cords shall not be a substitute for permanent wiring. Extension cords and flexible cords shall not be affixed to structures, extended through walls, ceilings or floors, or under doors or floor coverings, nor shall such cords be subject to environmental damage or physical impact. Extension cords shall be used only with portable appliances.

605.9 Temporary wiring. Temporary wiring for electrical power and lighting installations is allowed for a period not to exceed 90 days. Temporary wiring methods shall meet the applicable provisions of NFPA 70.

Exception: Temporary wiring for electrical power and lighting is allowed during periods of construction, remodeling, repair or demolition of buildings, structures, equipment or similar activities.

605.9.1 Attachment to structures. Temporary wiring attached to a structure shall be attached in an approved manner.

I have heard there is a limit on the amount of time an extension cord may be used. Is this true?

Yes. If the extension cord is being used as a substitute, or as a replacement for permanent wiring, then there is a time limit. The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

605.5 Extension cords. Extension cords and flexible cords shall not be a substitute for permanent wiring. Extension cords and flexible cords shall not be affixed to structures, extended through walls, ceilings or floors, or under doors or floor coverings, nor shall such cords be subject to environmental damage or physical impact. Extension cords shall be used only with portable appliances.

605.5.1 Power supply. Extension cords shall be plugged directly into an *approved* receptacle, power tap or multiplug adapter and, except for *approved* multiplug extension cords, shall serve only one portable appliance.

In an effort to eliminate the noise of doors slamming in the corridors and stairwells, and in addition to cutting down on the wear and tear, we have placed "kick downs" or "chocks" under, or tied open these doors. Is this acceptable or should something else be done?

No. This is not acceptable, and yes something else can and should be done. First all these non-approved methods shall be removed immediately! The fire and smoke doors shall remain closed at all times unless automatically controlled by the fire alarm system. If not, then "door release magnets" controlled by smoke detectors and the fire alarm system should be installed. These doors are in place for one purpose, Life Safety. Their purpose is to prevent, or at least control, the spread of smoke and fire. By holding them open with non-approved methods (kick downs, chocks, cords, wire, etc.) you are preventing them from performing a vital function that would save lives. The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

703.2 Opening protectives. Opening protectives shall be maintained in an operative condition in accordance with NFPA 80. Fire doors and *smoke barrier* doors shall not be blocked or obstructed or otherwise made inoperable. Fusible links shall be replaced promptly whenever fused or damaged. Fire doors shall not be modified.

703.2.2 Hold-open devices and closers. Hold-open devices and automatic door closers, where provided, shall be maintained. During the period that such device is out of service for repairs, the door it operates shall remain in the closed position.

1025.3 Opening protective. *Fire doors* in *horizontal exits* shall be self-closing or automatic-closing when activated by a *smoke detector* in accordance with Section 715.4.8.3 of the *international building code*. Doors, where located in a cross corridor condition, shall be automatic-closing by activation of a *smoke detector* installed in accordance with Section 715.4.8.3 of the *international building code*.

What are the rules regarding the doors and windows in classrooms?

The doors and windows opening directly into open outdoor areas (not enclosed courtyard areas) are required as secondary emergency exits in cases where the primary corridor exit is not accessible or possible due to an eminent Life Safety Hazard such as fire, smoke or a "lockdown" situation. These exits

from classrooms and other such rooms in the building are treated in the same manner as all other exits. The 2012 NC Fire Prevention Code states the following.

(Ref. 2012 NC Fire Prevention Code):

1030.1 General. The means of egress for buildings or portions thereof shall be maintained in accordance with this section.

1030.2 Reliability. Required exit access, exits or exit discharges shall be continuously maintained free from obstructions or impediments to full instant use in the case of fire or other emergency when the area served by such exits are occupied. Security devices affecting means of egress shall be subject to approval of the fire code official.

1030.3 Obstructions. A means of egress shall be free from obstructions that would prevent its use, including the accumulation of snow and ice.

1030.4 Exit Signs. Exit signs shall be installed and maintained in accordance with Section 1011. Decorations, furnishings, equipment or adjacent signage that impairs the visibility of exit signs, creates confusion or prevents identification of the exit shall not be allowed.

1030.5 Nonexit identification. Where a door is adjacent to, constructed similar to and can be confused with a means of egress door, that door shall be identified with an approved sign that identifies the room name or use of the room.

1030.6 Furnishings and decorations. Furnishings, decorations or other objects shall not be placed so as to obstruct exits, access thereto, egress therefrom, or visibility thereof. Hangings and draperies shall not be placed over exit doors or otherwise be located to conceal or obstruct an exit. Mirrors shall not be placed on exit doors. Mirrors shall not be placed in or adjacent to any exit in such a manner as to confuse the direction of exit.

1030.7 Emergency escape openings. Required emergency escape openings shall be maintained in accordance with the code in effect at time of construction, and the following: Required emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools. Bars, grills, grates or similar devices are allowed to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with the code that was in effect at the time of construction and such devices shall be releasable or removable from inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening.

To submit your question, email Larry A. Cockrell, larry.cockrell@dpi.nc.gov, Risk Control Specialist, Safe and Healthy Schools Support Division, Insurance Section.