

# BBS Newsletter



Bob Taft  
Governor  
Gerald O. Holland  
Chairman

## FCC Do-not-call List Could Restrict Contractors When Faxing Project Information

The construction industry uses fax machines on bid days across the US. Information on multi-million-dollar projects is communicated through those machines. Jan. 1, 2005, could be the day that limits the utility of fax machines. It could mark a traumatic change in the way the industry does business. Or it could be just another headache, another Y2K scare that the construction industry can ignore. Congress and the FCC have finally passed a do-not-call-list law. Its purpose is ostensibly to restrict telemarketers and to keep them from advertising using group faxes. The law specifies that the only way one company will be able to fax another company is if it has written consent. But the law doesn't recognize a difference between telemarketers sending random faxes and contractors notifying their subcontractors. The impact this will have on construction companies is obvious. This law could limit a contractor from being able to send a fax to so-

licit bids from a list of subcontractors' fax numbers.

The FCC is already policing the business fax; it is illegal to send unsolicited business faxes to companies that aren't considered established business contacts. Beginning in 2005, the law gets more restrictive. It will not matter if there's a business relationship.

If you receive a large quantity of E-mail traffic now, this law could push the construction industry into a new level of E-mailing.

To comply, construction companies will have to get written consent. They have to contact everyone on their fax lists and get them to approve to receive faxes. If a subcontractors will not sign an approval, then the sub will not get the fax notifications.

It will probably mean more paperwork for contractors, more difficulty in getting timely change order requests processed, more confusion is communicating construction document

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## California Commission Votes Against ICC Adoptions

The California Building Standards Commission (CBSC) voted against recommending the International Codes (I-Codes) as the state's building safety and fire prevention codes; they did so in spite of strong support from state agencies and a coalition of private and public sector interests. The Commission acknowledged gaps in NFPA 5000 and recommended use of the International Residential Code for One- and Two-Family Dwellings.

As a result of an extensive review of model code options, the California Department of Housing and Community Development, Department of General Services Division of the State Architect and the Office of Statewide Health Planning Development supported adopting I-Codes. These state agencies were joined in support by a coalition representing California Building Officials (CALBO), hundreds of California municipalities, fire departments, code enforcement officials,

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## In the News Around Ohio



**ELYRIA** — Several individuals who lost possessions in an apartment fire allege that tar stored in the building’s ceiling space caused the structure to be destroyed by fire.

The lawsuit alleges “negligence, fraudulent concealment and violation of the Ohio Landlord-Tenant Act” and seeks an undisclosed amount of damages.

The owner declined to comment on what if anything was stored in the truss space.

The fire reportedly began as a grease fire in the kitchen of an apartment.

Firefighters doused the flames and confirmed that the blaze had not extended to the units above, below or adjacent.

Tenants were permitted to return to their apartments and crews began ventilating Fairview Manor using large fans to propel smoke out the windows.

Ten minutes after firefighters extinguished the grease fire and allowed residents to return to their apartments, flames broke through the building’s roof. The local fire department then began a second evacuation of residents.

**HAMILTON** — Until the end of September, anyone submitting construction documents will be required to use meet old code requirements. Construction documents submitted for one-, two- or three-family dwellings on or after Sept. 29 will be subject only to the new city building code. The new code went into effect June 11.

The city’s old building code, also called the Hamilton Building Code or HBC, had been in effect since April of 1973 .

The new building code is based

on the 2000 edition of the International Residential Code for one- and two-family dwellings. A city official indicated that the new and building code will help ensure better insurance rates for homeowners.

**CHAMPAIGN COUNTY**—A court case filed by the Champaign County Building Regulations Department against a local home builder may be near resolution.

The builder has appeared in court for a status conference with his attorney.

The county building official filed a complaint last year against the builder on behalf of several homeowners who testified in hearings in Champaign County Common Pleas Court.

A permanent injunction was issued by the court to prevent the builder from engaging in further construction work in the county and he was ordered to abate building code violations at the homes.

A settlement agreement was signed in a court hearing in the case of a home builder who was sued by the Champaign County Building Regulations Department last year.

The builder agreed to fix problems present in eight homes be built in a subdivision in Goshen Township.

After the lawsuit was filed, multiple homeowners testified about a variety of workmanship issues, including cracked walls and floors, leaking in basements, trash buried in yards and inferior shingle and siding installation.



ICC CODE DEVELOPMENT SCHEDULE

CODE DEVELOPMENT CYCLE	2003-2004	2004-2005
	18 Month Cycle	Tentative Dates
		18 Month Cycle
DEADLINE FOR RECEIPT OF APPLICATIONS FOR CODE COMMITTEES (CC)	March 24, 2003	August 20, 2004
DEADLINE FOR RECEIPT OF NEW CODE CHANGE PROPOSALS	March 24, 2003	August 20, 2004
PUBLICATION DATE FOR MONOGRAPH OF "PROPOSED CHANGES TO THE I-CODES"	July 3, 2003	December 21, 2004
PUBLIC HEARINGS ON CODE CHANGE PROPOSALS	September 5-14, 2003 Opryland Hotel Nashville, TN	February 21 - March 2, 2005 Millennium Hotel Cincinnati Cincinnati, OH
PUBLICATION DATE FOR "REPORT OF THE PUBLIC HEARINGS"	November 14, 2003	May 2, 2005
DEADLINE FOR RECEIPT OF PUBLIC COMMENTS	January 14, 2004	June 17, 2005
PUBLICATION DATE OF PUBLIC COMMENTS "FINAL ACTION" AGENDA	April 1, 2004	August 24, 2005
PUBLIC HEARINGS FOR "FINAL ACTION CONSIDERATION"	May 17-20, 2004 Sheraton Hotel Overland Park, KS	September 25-29, 2005 COBO Center Detroit, MI
ANNUAL MEETING DATES	September 5-14, 2003 ICC Meeting Nashville, TN Hearings: Opryland Hotel Hotels: Opryland Hotel	September 25-29, 2004 ICC Meeting Salt Lake City, UT Salt Palace  September 25-29, 2005 Hearings: ICC Meeting COBO Center Detroit, MI
RESULTING PUBLICATION	2004 SUPPLEMENT	2006 EDITIONS





## Getting Mechanical—Debbie Ohler, P.E.

### The Pressure's on ! Regulating Piping Sys- tems.

In June of 2003, the Ohio General Assembly adopted House Bill 95, which substantially amended the piping systems provisions of Ohio Revised Code Chapter 4104., generally known as the pressure piping laws. These amendments are scheduled to be effective on September 26, 2003.

BBS staff is working with the Division of Industrial Compliance to develop and coordinate policies that will be incorporated into draft administrative rules to reflect these legislative changes. The proposed rules will be filed with the Legislative Services Commission (LSC) and the Joint Commission of

Agency Rule Review (JCARR) the week of September 22, 2003 and heard at the BBS public hearing scheduled for October 31, 2003. If all goes as planned, the rules will be effective January 1, 2004.

The following is a summary of the proposed rule changes:

1. All piping systems that were previously regulated under the pressure piping rules (power, refrigerating, hydraulic, heating, LP gas, oxygen, and other gaseous piping systems), will now be regulated under the Ohio Mechanical Code (OMC) rules or the Ohio Plumbing Code (OPC) rules. The board's goal is to regulate these systems, using ICC model code language, wherever possible. Where this is not

possible, we will amend the model code language to reflect the legislative regulatory intent. This means there will no longer be any rules under 4101:8 (pressure piping rules). The rules regulating these piping systems will be adopted under 4101:2 (OMC) or 4101:3 (OPC).

2. Like the ICC plumbing code, nonflammable medical gas and vacuum piping and oxygen piping will be regulated through the OPC chapter 12. An additional reference will be made to ASME B31.1 for regulation of oxygen systems that may be outside the scope of NFPA 50 or 51.
3. All installers, inspectors, verifiers, construction contracting

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## Legally Speaking—John Brant, Esq.

Recently, the Board of Building Standards has received a number of complaints about the quality of services provided by building officials, plans examiners, and inspectors. Usually, the complainant is a concern because a major investment has been made in a construction project and the building has been finalized with some perceived flaw. Other complaints have dealt with the failure to adequately review plans or to review plans in a timely manner. These latter complaints are usually received from design professionals who believe their projects have been improperly reviewed or delayed. More recently, because of the economic recession, many of the complaints are about the quality of workmanship on projects, but these complaints are often found to be tied to a contractor who has been the unsuccessful bidder on a project.

The Board has the legal obligation under Section 3781.10 (E) (5), Revised Code, to investigate all complaints concerning building departments and their personnel. The Board's sole sanction is to determine whether to revoke or suspend the certification of the department or its personnel after an investigation is conducted by the Board's staff. The Board is required to hold an adjudication hearing when the investigator determines there is sufficient evidence to support the complaint. Under Chapter 119, Revised Code, the Board has the responsibility of holding the hearing and proving by reliable, probative and substantial evidence that Rule 4101:1-1-03.3.14 has been violated. Basically, this rule provides that the Board can revoke building department personnel's certification for gross negligence, incompetence, or misconduct in

performance of their duties. Building department certification, on the other hand, requires an additional step; e.g., a public hearing where the rule of certification is actually proposed for revocation or suspension, and the public is given a chance to testify on the effects that revocation or suspension could have on the public and the political subdivision.

You might be asking why is this article being written. The reason is that the Board has conducted a number of adjudication involving complaints against building department personnel. A recent complaint involved a plans examiner who basically admitted under oath that he did not know many of the provisions of the code and that he often waived the provisions when confronted by a building inspector in the department that thought his own standards were better than the

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## Snapshots of the ICC Conference



**2003 ICC Code  
Development  
Conference –  
Nashville**



## Around the Code World with Mike Brady



### DIFFERENT COUNTRIES, DIFFERENT STANDARDS

For those of you who don't know me, I like to travel. It's my hobby, so to speak. I don't travel nearly as much as I'd like to, but I've seen enough to know how things work in other parts of the world. During my trips I've seen some pretty strange and interesting things in buildings that we would never expect to see in this country. Many occurred presumably due to lack of regulation or enforcement or both, but many were because of a different philosophical approach to safety.

In many countries, fire protection and suppression is less dependent on technology than in the US. In some hotels in Europe and the Far East, instead of

sprinklers, I've seen heat detectors, fire alarm stations, and hose cabinets with coils of 2-inch black rubber hoses which the guests are expected to use before the fire department gets to the scene. Why is this? It's not necessarily because of inferior building standards, but it's because of a different philosophy about fighting fires. In our country, the first thing we do is evacuate the building and wait for the fire department to show up. In other parts of the world, the occupants are expected to stay and fight the fire until the fire department gets there. Maybe this type of early response system by non-professionals really works. It's perfectly acceptable in places like

Germany, a country which has some of the highest standards in the world. So why not here? I think the answer lies in our culture, our experience, or in our expectations.

At the other extreme, some hotels in Brazil have a very efficient and simple, if not downright hazardous way of heating your shower water. In the bathrooms, wrapped around the showerheads, are ominous looking devices connected to bare copper wires which disappear into the walls somewhere nearby. When you step into the shower, you are expected to throw a switch (located either on the device or on the wall) which will

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### Pressure Piping

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- maintenance personnel, and instructors for the design, installation, and testing of nonflammable medical gas and vacuum piping systems will be required to obtain a certification by the American Society of Sanitary Engineers (ASSE). A reference will be made in the OPC to make code users aware of this requirement. Additionally, a plumbing code reference will be made to the ASSE 6000 series of standards.
4. The "other gaseous piping" category specified in the Revised Code will be enforced through the OMC with the exception of nonflammable medical gas. Any piping system falling within this category such as industrial gas or hydrogen will be designed, installed, and tested in accordance with the fire prevention code and ASME B31.1.
  5. Like the ICC mechanical code, LP gas will now be regulated through the OMC and the International Fuel Gas Code.
  6. Like the ICC mechanical code, refrigeration piping will now be regulated through the OMC Chapter 11.
  7. Like the ICC mechanical code, hydronic piping (comfort heating piping) will be regulated through the OMC Chapter 12.
  8. Chapter 12 of the OMC will be expanded to include the regulation of power piping and hydraulic piping. A new section, 1210, will be added for the regulation of these piping systems and new references will be made to ASME B31.1, ASME B31.3, and ASME B31.9.
  9. New language will be added to the OMC and OPC addressing the qualifications of welders and brazers of power, refrigerating, hydraulic, heating, LP gas, oxygen, and other gaseous piping systems.
  10. New language will be added to the OMC and OPC that requires welding and brazing qualification forms to be submitted to the division of industrial compliance for review, just as is currently the practice for these piping systems.
  11. New language will be added to the OMC and OPC requiring that the approved welding and brazing forms be available on the job site for the inspector of the piping system to review. The inspector will be required to ensure that the forms have been completed and bear the approval stamp of the superintendent of the division of industrial compliance. A rule has been added defining the procedure for inspectors to follow when the ability of the welder or brazer is questioned.
  12. Inspection of these piping systems will no longer be the responsibility of the Division of Industrial Compliance in all cases. Certified building depart-

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## Code World

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then send an electric current to the showerhead and heat the water as it passes through. Kind of nifty, huh? Just don't touch those showerheads or wires and you'll be okay. It must work. I haven't heard any complaints.

In several Asian and Latin American countries and even in New Zealand, it seems perfectly acceptable to mount electric distribution panels in the main corridor or stairway inside buildings with the fuses and wiring completely exposed to anyone who cares to inspect or even touch if they want to. Actually, some of these could not really be considered panels. Many were just plywood panels with wires and devices just nailed

into them. I can't say I blame them, because all you had to do was walk outside and see the power company doing the same thing: open boxes (or no boxes) attached to buildings, spaghetti-like bundles of exposed wiring, no insulation, etc. This is not to say that all buildings are like this. Many seem to be built to very high standards and appear to be as safe or even safer than many buildings here in the US.

If you visit the Great Wall of China, you will find the stair risers vary anywhere between 1 and 13 inches in height. Sometimes you will find a rudimentary pipe hand-rail here and there, sometimes not, but why quibble? Aren't we talk-

ing about a great historical world treasure? You can climb the Great Wall, but you are responsible for your own safety, so watch your step. Under our building code, many stairs inside the old castles of Europe and Japan would be closed for serious hazard reasons, but year after year, visitors willingly ascend and descend these treacherous paths just to see the next great view. People instinctively know when something is less safe and they adjust accordingly. In case you're wondering, I'm not suggesting a code change. Many hotels in Asia and parts of Europe use a unique and very effective method of energy conser-

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## Pressure Piping

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ments will be responsible for enforcement of refrigeration, heating, and LP gas piping systems. Enforcement of power, hydraulic, oxygen, medical gas, and other gaseous piping systems will be optional for the specifically certified building departments. Enforcement includes plan examination and inspection.

13. Like plumbing enforcement, two new optional enforcement certifications, power piping and medical gas, will be available to certified building departments. Building departments desiring to enforce power piping (including hydraulic, oxygen, and other gaseous piping systems) and/or medical gas piping systems will have to request this certification from the Board. Otherwise, enforcement of these piping systems will remain with the Division of Industrial Compliance. The Ohio

Building Code (OBC), Section 103, has been revised to reflect this change.

14. A new medical gas inspector certification will be created in OBC section 103. Building departments that request enforcement of medical gas piping systems will have to employ or contract with an individual holding this optional certification.
15. The optional mechanical inspector certification duties have been expanded, in OBC Section 103, to include the inspection of power piping, oxygen piping, and mechanical piping systems.
16. Previous exemptions found in the pressure piping rules have been retained and relocated to OBC Section 105.
17. New fees have been added to OBC Section 108 for the Division of Industrial Compliance's review of welding and brazing forms.

18. The general inspector, special inspector, and municipal pressure piping certifications have been eliminated. Special inspectors wishing to continue inspecting piping systems will eventually need to apply for and obtain a mechanical inspector's certification from the Board.

To obtain a copy of the actual text of the proposed rules, check the public hearing draft mailed to your building department or on the Register of Ohio website at [www.registerofohio.state.oh.us](http://www.registerofohio.state.oh.us) (after September 22, 2003). If you have questions or concerns about the rule changes, please feel free to contact me at the office (614) 644-2613 or via e-mail at [dohler@com.state.oh.us](mailto:dohler@com.state.oh.us).

If you would like to comment on the proposed rule changes, please make every attempt to make your voice heard at the Board of Building Standards public hearing scheduled for October 31, 2003 at 10:00 am.



## Making it Understandable - Jan Sokolnicki



We've received several questions and site or plan review problems that relate to the same topic areas. In question/answer format we will attempt to clarify the intent and application of the code provisions:

***We've received several plan approval applications for residential (condo) projects that are town-house types (side-by-side R-3) and are four stories in height. Are there special conditions that apply?***

First of all, because the buildings or units are more than three stories, the IRC exception in section 310 cannot be used; the provisions of the OBC apply. This means that the requirement for sprinklers (in Chapter 9) and an elevator in Chapter 30 (§3002.4) must be met. Some of these designs include an option for an inside-the-unit residential elevator meeting the requirements of Chapter 10 of the ANSI A117.1-98. It would be necessary to use the appeals board to allow the use of the smaller elevator in place of the full sized type required by Chapter 30. Additionally, once an elevator is installed in an R-2 or R-3 building, the multi-floor living space exception for the units no longer applies to the unit served by the elevator and each floor served by the elevator, regardless of the elevator size, must meet the Type-B requirements in Chapter 10 of the ANSI A117.1.

***We've had several projects submitted for downtown renovations that include changing retail or storage space to residential (condos or apts) and some where older apartment buildings are being updated or converted to larger sized condos.***

***How do the accessibility provisions apply, if at all?***

If the alterations include creating or altering the common and/or public use areas, those alterations must be designed and constructed in accor-

dance with Chapter 34, including considering to what extent the amenities must be changed to meet the requirements in section 3409 related to changes in primary function. This section does not necessarily require full compliance with the new construction provisions of ADAAG, if a building element is not being altered, but rather requires a determination if it is useable by a person with disabilities in its present condition. The priorities listed and cost proportionality must be taken into consideration.

The dwelling units themselves are much easier to determine compliance. Chapter 34 exempts existing buildings from the requirements for Type-B units (see §3409.1, Exception). However, if the building had more than 20 units in it, 2% but no less than one Type-A unit (in accordance with Chapter 10 ANSI A117.1) would be required and would have to be located on an accessible route.

***In larger dormitories, do the Type-A sleeping unit requirements apply?***

Chapter 11 does indicate the Type-A requirements apply when there are more than 20 units but it allows Type-A requirements to be satisfied when the required units are constructed as accessible units. Since dormitories, frat & sorority houses, group homes, etc., are also required by ADAAG to be accessible in accordance with that standard, the project would comply if the required sleeping units were made accessible in accordance with ADAAG.

***Do toilet facilities specifically intended for tenant/employee use in a mall - not available to the public - have to be accessible?***

Yes. These toilet rooms would be

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## ICC Adoptions

Louisiana is the 48th state to adopt the *International Codes*<sup>TM</sup>. Louisiana will enforce the 2000 IBC and IMC. The City Council in the state's largest city, New Orleans, adopted the IBC, IMC and IFGC.

Governor Murphy James Foster, Jr. signed the Louisiana Building Code legislation June 18. It takes effect January 1, for state-owned buildings and the Louisiana State Uniform Construction Code. In New Orleans, the I-Codes also are effective in January.

St. Louis has adopted the 2003 IEBC as its "Rehab Code." Mayor Francis G. Slay signed the bill, which goes into effect August 1. St. Louis already uses using the 2000 IPMC, IFGC and IMC.

For school districts in areas without building codes, the Texas Education Agency adopted the IBC, IFC, IPC, IFGC and IECC. In 2001, Texas endorsed the IRC, IPC and IMC for local adoption.

South Carolina has updated its building code laws. Governor Mark Sanford signed a bill on July 2nd that specifically designates codes published by the International Code Council as the codes of reference for construction in the state. The law includes: the IBC, IRC, IFGC, IPC, IMC, IFC and IECC. Municipalities may also adopt the IPMC, ICC Performance Code and IEBC.



## California

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labor and professional organizations such as, the American Institute of Architects, Structural Engineers Association of California and Building Owners and Managers Association.

"California has always been at the forefront of safety in the nation and we are dedicated to continuing our work with our members and partners to improve the codes in California" said James Lee Witt, CEO of the International Code Council. "The ICC is disappointed in the decision, but we are not giving up. We hope that the state agencies that recommended the adoption of the I-Codes will stand by their recommendations for the safety of the citizens of California."

This recent decision could leave California as one of only two states that do not use I-Codes at the state or jurisdictional level. Federal agencies, including the Department of Defense, also reference and enforce the International Codes.

International Codes are the logical successor of the Uniform Codes, which are the codes that have been used in California for the past several decades. The burden of the additional cost to retrain and recertify local government officials, who are already certified and familiar with the I-Codes, will fall on the California taxpayers.

In order to address one of the glaring deficiencies in NFPA 5000 related to housing construction, the Commission decided to include provisions of the International Residential Code for One- and Two-Family Dwellings published by ICC.



## Legally Speaking

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Ohio Building Code. Additionally, the plans examiner also tried to place blame for the review of plans on clerical support staff that typed his correction letters. The Board decided that this plans examiner's failure to perform rose to the level of incompetence in the performance of his duties. The Board is concerned that other building department personnel might perform in a like manner, and wish to advise building department personnel that negligent or incompetent performance of duty can lead to suspension or revocation of an individual's certification.

Another issue involving certified personnel that the Board has been litigating over the last year is the attendance of individuals at mandatory courses. Two years ago when the Board gave mandatory courses, an individual had persons from his company attend in his place but sign his name. The Board determined that the person's certification as a plans examiner should be suspended for six months. The Franklin County Court of Common Pleas held that the Board could suspend a certificate where the individual had registered to attend a Board-sponsored course and sent others to attend in his place. The Court found that reliable, probative, and substantial evidence supported the Board's decision to suspend the individual's certification upon finding that the certificate holder engaged in fraud and deceit in relation to a continuing education course that was required for certification and the Board was justified in suspending the certificate for six months. The Court upheld the Board mandating continuing education courses for certification and requiring the

holder to attend the training.

The Board handles between fifteen and twenty complaints a year involving certificate holders, and the majority of these are resolved with a finding of no fault on the part of the certificate holder. However, a smaller number do result in sanctions to the individual. Suspension and revocation of an individual certificate is the ultimate sanction which the Board has sought to limit, and the Board believes that the enforcement community ought to understand that this occasionally happens. Enforcement personnel should resolve to perform their duties within the boundaries of the law and as outlined in Chapter One of the Ohio Building Code.



## Understandable

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considered common use (for the tenants) and would be required to be accessible to the extent required except for those meeting the exceptions criteria listed in OBC §1109.2.

***What accessibility provisions are plans examiners missing most on plan reviews of residential projects?***

In some developments, all dwellings have living space on more than one floor and are in buildings without elevators and with 20 or fewer units. Therefore none of the units are required to be Type A or Type B but plans examiners fail to notice or review to assure that the common and public use areas are accessible.

Also, very few designers and plans examiners have understood that both the Type A & Type B units must have a hard-wired doorbell for each unit and a means for visually identifying a visitor (§1004.5 ANSI A117.1).







## Training News—Billy Phillips

### WHERE CAN A LIST DESCRIBING WHERE AND WHEN CONTINUING EDUCATION COURSES ARE OFFERED BE FOUND?

The most frequently asked question I receive from certified building department personnel is in regards to whether there is a list of continuing education courses and where and when the courses are being offered.

The first question is pretty simple because the Board maintains a continuing education course approval list of all the approved courses on the BBS web page. The list will show you all of the continuing education courses with information including the course approval number, course name, telephone number for the contact person, credit for which certification categories are approved and the approved number of hours.

The BBS web page can be accessed at [www.com.state.oh.us/dic/dicbbs.htm](http://www.com.state.oh.us/dic/dicbbs.htm), by going to the continuing education section under continuing education course approvals. The BBS continuing education course approval list can also be accessed by going to the Ohio Building Officials Association web page at [www.oboa.org](http://www.oboa.org), under the education section. If you do not have access to the internet the Board maintains a hard copy that can be sent to you upon request.

All currently approved BBS continuing education courses start with the prefix BBS2002. The 2002 refers to the current code the Board has adopted and will be changed when the Board goes through the next code change cycle. If you are enrolling in a course make sure the course approval number starts with BBS2002 or you will not receive credit toward your 30 hours of continuing education for renewal of your certifica-

tion. If you have an old course number that does not begin with BBS2002, you can submit an application for a continuing education course update based on the existing code and a new number will be assigned.

The question of where and when continuing education courses are being offered is not quite as simple. The Board has a requirement that a notice of where and when a course will be offered shall be sent to the Board prior to the course being conducted. The notification is necessary for the Board to monitor and audit courses and the instructors. However, the notification is often times not provided in a timely manner to the Board and therefore it is difficult to keep a list of where and when the courses take place.

There are several ways you can find out where and when continuing education courses are being offered. You can check with our office to see if any notifications of courses have been submitted. The second way is

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## Code World

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vation. When you walk into your room, throw the light switch and nothing happens, remember to put your magnetic key card (the one that unlocks your door) into the wall slot provided. Without your card, the electricity to your room's lights, AC, heating and ventilation will not work. Once your card is placed into the slot, your lights will turn on, your AC will start working and so on. This design ensures that you will not leave the electricity running when you leave your room. Not bad, huh?

Many cities in Asia are more considerate toward the disabled

than we are. For example, the crosswalk signals in Hong Kong and Tokyo not only emit visual signals, but they also emit audible signals that change in frequency to alert the visually impaired not only when to cross, but also how long they have to cross. The curb ramps wrap around entire corners to avoid unnecessary tripping hazards and they are textured in a way to make the transition clear.

The one common theme I've found throughout the world is the farther away you get from regulated areas, i.e., the big cities, the less building safety gets taken into consideration. Most of the major cities and metropolitan areas use modern building codes in one form or another. The world offers much to learn. So if

you are fortunate enough to travel, take a look around and notice what's different. Maybe you can bring back some ideas we can use here.



## Faxing

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changes, etc.

Until the construction industry begins to make wireless communication its mode of choice and uses a technology that can document communication, the fax machines will continue to be used. It can only be hoped that the Congress will realize that a one-size-fits-all approach to protecting citizen's privacy could cause more problems that it attempts to correct.



## Ohio Board of Building Standards Calendar

### SEPTEMBER 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

- 8—Electrical Safety Inspector Certification Examination
- 5-12—ICC Code Development Conference
- 12—Board of Building Standards Conference Meeting

### OCTOBER 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

- 13—Columbus Day
- 31—Board of Building Standards Public Hearing & Conference Meeting



### NOVEMBER 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

- 10—Veteran's Day
- 11—Election Day
- 27—Thanksgiving

### New Appendix P

The Ohio Building Code's Appendix P, "Approved National Evaluation and Accreditation Services", was recently revised to include the International Code Council Evaluation Service, Inc. (ICC-ES) and the ICC International Accreditation Service, Inc. (ICC-IAS) in the listing of approved services. Both are located at 5360 Workman Mill Road in Whittier, California 90601.

This means that reports issued by these agencies are now valid for use by designers, building officials, and other code users in the State of Ohio. Unfortunately, according to West Law Publishing (the publisher of the OBC), the new Appendix P will not be printed until sometime in early February, 2004. We've filled the gap by placing the new Appendix P on the BBS website at [dic.bbs@com.state.oh.us](mailto:dic.bbs@com.state.oh.us).



### ICC Calendar

#### OCTOBER 2003

- 1,2—Affordable Comfort for New England 2003; Westford, MA
- 9-11—South Atlantic Design Expo; Savannah International Trade and Convention Center; Savannah, Georgia
- 19-22—Code Official Institute-Orlando
- 19-22—Joint NCSBCS/AMCBO Annual Conference & 3rd National Forum on Building Smarter in the Digital Age; Portland Marriott Downtown, Portland, Oregon
- 21,22—ICC Consensus Committee on Storm Shelters Meeting
- 31-2—ASPE 2003 Technical Symposium; San Antonio, Texas

#### NOVEMBER 2003

- 3-5—IRCC Global Summit; Washington, DC
- 9,10—NEMA Annual Meeting & Leadership Conference; Washington, DC
- 13-16—ASCE Annual Conference; Opryland Hotel; Nashville, Tennessee
- 14—Publication Date for "Report of the Public Hearings"
- 15-19—APHA Annual Meeting; San Francisco, California
- 15-19—NFPA Fall Educational Conference; Reno, Nevada

## The Active v. Passive Systems Debate

Richard G. Schulte, Schulte & Associates, Evanston, IL.

The issue of "trade-offs" in passive fire protection requirements when sprinkler protection is installed appeared on page 60 of the September 2001 issue of *Plumbing Engineer*. That letter contained a number of interesting comments, so it is well worth a review.

Mr. Licht writes: *"It is clear that sprinklers have been ineffective in stopping the migration of toxic smoke in reported fires. This conclusion is based on study of fire incidents in sprinklered high rise buildings where smoke migrated beyond the floor of origin to expose occupants to toxic and deadly fumes."*

Mr. Licht's generalization regard-

ing smoke migration in sprinklered buildings is technically correct, but it is also misleading. The statistics cited do show that smoke generated from a fire in sprinklered buildings does occasionally spread to floors other than the fire floor. What the statistics referenced do not show, however, is the extent of the migration of smoke or the reason for the smoke migration. Smoke may spread to other floors via improperly firestopped penetrations of floor construction (a code violation) or through unenclosed floor openings permitted by building codes. (All three regional model building codes and the *International Building Code* permit unenclosed floor openings to connect two building stories in most occupancies.) Logic would dictate that cases where smoke migrated to other floors via unenclosed floor openings or improperly firestopped penetrations be excluded from the statistics on smoke migration in sprinklered buildings. However, the statistics cited by Mr. Licht are simply the raw statistics, which, of course, may lead to faulty conclusions.

Let's also examine Mr. Licht's concern about "toxic and deadly fumes" produced by fires. Of obvious interest if we are talking about toxic and deadly fumes are the fire fatality statistics collected by the National Fire Protection Association (NFPA). The fire fatality statistics published by the NFPA indicate in the eight-year period between 1988 and 1995, only one fire fatality occurred in the all of the high rise office buildings in the United States. These same statistics indicate that in the five-year period between 1991 and 1995, not a single person died as a result of a fire in any high-rise hotel building in the

United States.

In the interest of providing a fair and balanced picture of the magnitude of the fire problem in U.S. high rise buildings, in the 11-year period between 1985 and 1995, it averages out to approximately 54 fire fatalities in high rise apartment buildings a year. However, it should be noted that these statistics include both sprinklered and unsprinklered buildings. Of course, only the number of fatalities that occurred in sprinklered high-rise apartment buildings are of interest in this discussion.

The NFPA statistics cited above clearly show that the reference to "toxic and deadly fumes" is intended to play on our emotions, rather than to look objectively at the facts. There is no denying that smoke from a fire can be "toxic and deadly", but the probability of dying in a fire in a high-rise building is so small that there should be little concern by the public. To put things in perspective, it should be noted that it is estimated that approximately 75 people die each year in the United States as a result of being struck by lightning. In other words, it can be stated that typically more people die in the United States as a result of being struck by lightning than as a result of fires in high rise buildings. No emotion, just the facts.

Mr. Licht also writes: *"Smoke is widely recognized as the primary killer in structural fires. It asphyxiates, limits visibility, reduces the possibility of escape, endangers fire fighters and hampers their efforts."*

No need to comment further on this statement. The statistics on lightning vs. fire fatalities in U.S. high rise buildings say it all. Ob-


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### Training News

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to review the Board's continuing education course approval list and call the contact person listed at the phone number provided on the list. This will help you to determine if the course will be offered in the future. Finally the Ohio Building Officials Association web page also references all of the regional code organizations. If you go to the regional organizations link you can find their monthly schedules and what courses they will be offering throughout the year.

If you are not able find enough continuing education courses you can contact the International Code Council for courses that have already been approved and they also have web based on-line training available. If you still cannot find the courses you are looking for you can design develop your own courses and get them approved by the Board.



## Active v. Passive

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viously, Mr. Licht is speaking theoretically, not about our "real world" experience.

In addition, Mr. Licht further writes: "The Canadian report states (p. 134) 'Even when a sprinkler system meets the performance intentions of NFPA 13 with respect to achieving fire control, enough smoke can be produced by a shielded fire to fill the fire floor, stair shafts and other floors with smoke. It is reasonably likely that fires in office settings will be poorly ventilated, with the result that carbon monoxide concentration in the smoke may be dangerously high. If no measures are taken to prevent smoke spread, smoke from a shielded, sprinklered fire will create a threat to life safety in the building.'"

Obviously, the Canadian report referenced in Mr. Licht's letter didn't review the NFPA's statistics on fire fatalities in high rise office buildings. The fire record of both sprin-

klered and unsprinklered high-rise office buildings in the United States is almost unblemished.

While the Canadian report represents theory, it apparently doesn't take into account that occupants of the fire floor in office buildings will evacuate the fire floor and that fire suppression forces will respond to the fire. Once occupants of the fire floor have evacuated the floor, concentrations of CO and CO<sub>2</sub> on the fire floor are of little interest (even to firefighters, because firefighters wear self-contained breathing apparatus). And, of course, a fire in an office building that is controlled by the operation of a sprinkler system should be easily extinguished by the firefighters, more than likely with a single small hose line.

Mr. Licht concludes his letter with the following: "To abandon balanced fire protection in favor of sprinkler trade-offs is to invite disaster. That is

not merely an emotional argument to sell unnecessary products, as Mr. Schulte claims, but a statistical fact backed by a tragic record of death from toxic smoke."

Based upon the NFPA statistics cited above, the record is clear — sprinklered high-rise buildings are extremely safe buildings. (So are unsprinklered high-rise buildings, for that matter.) And if sprinklered high rise buildings are extremely safe, then sprinklered low rise buildings must also be safe. (Similarly, if unsprinklered high rise buildings are safe, then unsprinklered low-rise buildings must also be safe.) To claim otherwise is to simply ignore the facts. The claim that sprinkler trade-offs are not justified using the statistics cited by Mr. Licht can only be characterized as an attempt to confuse the facts with statistics that only tell part of the story.

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