

☞ 07hr_CRule_06-120_AC-Ho_pt02



Details:

(FORM UPDATED: 08/11/2010)

WISCONSIN STATE LEGISLATURE ... PUBLIC HEARING - COMMITTEE RECORDS

2007-08

(session year)

Assembly

(Assembly, Senate or Joint)

Committee on ... Housing (AC-Ho)

COMMITTEE NOTICES ...

- Committee Reports ... **CR**
- Executive Sessions ... **ES**
- Public Hearings ... **PH**
- Record of Comm. Proceedings ... **RCP**

INFORMATION COLLECTED BY COMMITTEE FOR AND AGAINST PROPOSAL

- Appointments ... **Appt**
- Clearinghouse Rules ... **CRule**
- Hearing Records ... bills and resolutions
(**ab** = Assembly Bill) (**ar** = Assembly Resolution) (**ajr** = Assembly Joint Resolution)
(**sb** = Senate Bill) (**sr** = Senate Resolution) (**sjr** = Senate Joint Resolution)
- Miscellaneous ... **Misc**

* Contents organized for archiving by: Mike Barman (LRB) (Aug/2010)

Becher, Scott

From: Brad Boycks [bboycks@wisbuild.org]
Sent: Monday, July 16, 2007 10:17 AM
To: Becher, Scott
Subject: FW: Scanned Document

Attachments: Scanned_.pdf



Scanned_.pdf (24 KB)

CRule
06-120

Good morning Scott and Rep. Wieckert-

Enclosed is a letter that Sen. Plale sent on Friday asking for a meeting with Sec. Burke to talk further about the proposed sprinkler rule change.

We believe that this is a positive step to allow more time to talk about this important issue and to allow time for the budget process to proceed and monitor the progress of the provision to improve fire safety that is in the assembly version of the state budget.

Please let me know if you have any additional questions.

Thank you-

Brad Boycks
Director of Government Affairs
Wisconsin Builders Association ®
bboycks@wisbuild.org
888-285-9066, x16

Visit our web site: www.wisbuild.org

If you have received this email in error, or if you no longer wish to receive commercial email communications from the Wisconsin Builders Association please click here and include in the body of the email message your name, company name and the email address to which this message was sent. **Please be aware that this will remove you from ALL commercial email communications from the Wisconsin Builders Association ®. ** Thank you.

-----Original Message-----

From: Brooks, Bryan BFB (6057) [mailto:BBrooks@whdga.com]
Sent: Friday, July 13, 2007 2:03 PM
To: Brad Boycks
Subject: FW: Scanned Document

Here is the letter Plale sent today...

-----Original Message-----

From: Madison Scanner [mailto:hp9100s@whdlaw.com]
Sent: Friday, July 13, 2007 2:01 PM
To: Brooks, Bryan BFB (6057)
Subject: Scanned Document

Please open the attached document.

This document was sent to you using an HP Digital Sender in Madison.

Sent by: Madison Scanner <hp9100s@whdlaw.com>
Number of pages: 1
Document type: B/W Document

Attachment File Format: Adobe PDF
To view this document you need to use the Adobe Acrobat Reader.
For free copy of the Acrobat reader please visit:

<http://www.adobe.com>

For more information on the HP Digital Sender please visit:

<http://www.digitalsender.hp.com>

The information in this e-mail is confidential and may be protected by the attorney's work product doctrine or the attorney/client privilege. It is intended solely for the addressee(s); access to anyone else is unauthorized. If this message has been sent to you in error, do not review, disseminate, distribute or copy it. Please reply to the sender that you have received the message in error, then delete it. Thank you for your cooperation.



SENATOR JEFF PLALE
SEVENTH SENATE DISTRICT
CHAIR
COMMITTEE ON COMMERCE, UTILITIES AND RAIL

STATE CAPITOL
P.O. BOX 7882
MADISON, WI 53707-7882

800-361-5487 - MADISON
414-744-1444 - MILWAUKEE
SEN.PLALE@LEGIS.WISCONSIN.GOV

July 13, 2007

Secretary Mary P. Burke
Wisconsin Department of Commerce
PO Box 7970
Madison, WI 53707
HAND DELIVERED

Dear Secretary Burke,

At this time I respectfully request a meeting with you or your representative to discuss Clearinghouse Rule 06-120, relating to the Fire Prevention and Wisconsin Commercial Building Codes.

This rule is currently before the Senate Committee on Commerce, Utilities and Rail. As Chairman, I believe additional time and further discussion are appropriate.

Thank you for your consideration.

Sincerely,

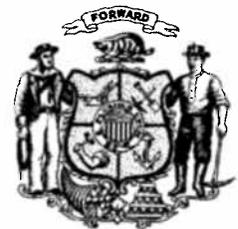
JEFF PLALE
State Senator
Chairman, Senate Committee on Commerce, Utilities and Rail

cc; Jeff Renk, Assistant Senate Chief Clerk
Members Senate Committee on Commerce, Utilities and Rail





WISCONSIN STATE LEGISLATURE





WISCONSIN LEGISLATIVE COUNCIL STAFF

One East Main Street, Suite 401 • P.O. Box 2536 • Madison, WI 53701-2536
(608) 266-1304 • Fax: (608) 266-3830 • Email: leg.council@legis.state.wi.us
<http://www.legis.state.wi.us/lc>

DATE: 7/16/07

NUMBER OF PAGES SENT, INCLUDING COVER PAGE:
[If pages are not all received or are illegible, please call 608-266-1304.]

CRule
06-120
?

PLEASE DELIVER TO: Scott Becker

FAX NUMBER:

FROM: Mary Matthias

MESSAGE:



7. Comparison with Rules in Adjacent States

An Internet-based search of adjacent states' rules found the following regulations that include similar requirements relating to public buildings and places of employment:

- The Michigan Department of Labor and Economic Growth administers the Michigan construction codes, which adopt by reference the 2003 editions of the IBC, IRC, IECC, IEBC, and IMC, with amendments. That Department also administers a Michigan fire prevention code, which adopts by reference the 1997 editions of NFPA 1 and NFPA 101[®], *Life Safety Code*[®], with amendments.
- * Michigan is in the process of adopting the 2006 editions of the ICC codes. The specific amendments cover differences from the adopted codes and include changes based on Michigan's laws; no amendments have been made relating to automatic fire suppression for residential occupancies.
- The Minnesota Department of Labor and Industry administers the Minnesota State Building Code, which adopts the 2000 editions of the IBC, IRC, IFGC, IMC, and IECC with amendments. The Minnesota Department of Public Safety administers the Minnesota State Fire Code, which adopts the 2000 edition of the *International Fire Code*[®] (IFC) with amendments. These Minnesota departments are in the process of adopting the 2006 editions of the ICC codes. The specific amendments cover differences from the adopted codes and include changes based on Minnesota's laws.
- * are in the process of adopting the 2006 editions of the ICC codes.
- Illinois does not administer a statewide building code. However, the Illinois Office of the State Fire Marshall administers the Illinois Fire Prevention and Safety Rules, which apply statewide and which adopt the 2000 edition of NFPA 101 with amendments.
- The Iowa Department of Public Safety administers the Iowa State Building Code, which adopts the 2003 editions of the IBC, IMC and IEBC. The Iowa State Building Code applies generally to buildings owned by the state of Iowa and to construction projects in local jurisdictions where the Iowa State Building Code is adopted. The only provisions of Iowa's codes that apply statewide relate to accessibility for persons with disabilities, energy efficiency and factory-built structures. The Iowa Department of Public Safety also administers the rules of the State Fire Marshall, which apply to a broad range of occupancies across the state, and which are largely based on NFPA standards, such as the exiting standards in the 2000 edition of NFPA 101, and the requirements for assembly occupancies, in the 2003 edition of NFPA 101. The rules of the State Fire Marshall also allow local jurisdictions to instead apply the IFC.

8. Summary of Factual Data and Analytical Methodologies

The primary methodology for updating the Wisconsin Fire Prevention Code, chapter Comm 14, and the Wisconsin Commercial Building Code, chapters Comm 60 to 66, has been a review and assessment of the latest editions of the national model codes that serve as the basis for the two Wisconsin codes. The department's review and assessment process involved the participation of various advisory councils. The members of the councils represent many stakeholders involved in the building industry, including designers, contractors, developers, regulators, labor, the fire service and the public. (A listing of the councils and the current members is provided at the end of this analysis.)

The department believes that the national model codes reflect current societal values with respect to protecting public health, safety and welfare in the design, construction, use, operation and maintenance of commercial buildings that serve as public buildings and places of employment. The two model code organizations (National Fire Protection Association, NFPA, and International Code Council, ICC) both utilize a process open to all parties in the development of their codes. More information, including background information in the development of the respective 2006 model code editions, may be obtained at the NFPA web site, <http://www.nfpa.org>, and the ICC web site, <http://www.iccsafe.org>.

For the Commercial Building Code, the review and assessment process involved an examination of the revisions that occurred in the 2003 and 2006 editions of the IBC, IECC, IMC, IFGC and IEBC. The assessment included the evaluation of the current rules under chapters Comm 61 to 65 that modified these ICC codes. In conjunction with the advisory councils, determinations are made as to whether the various technical requirements under the latest editions of the model codes are reasonable for addressing potential risks or concerns, and promoting the public health, safety and welfare. Such determinations may be made based upon experience, forecasts, intuition or projection.

The requirement for more automatic fire suppression in residential occupancies is the most prominent change in this proposal. The IBC has required automatic fire sprinklers in all buildings with Group R fire areas, other than townhouses, since 2001.

Wisconsin law under, s. 101.14 (4) (c), Stats., references the building code of the Building Officials and Code Administrators International, Inc., now the IBC, as a benchmark for establishing fire suppression rules to protect public health, safety and welfare for public buildings and places of employment, which includes multifamily dwellings.

Under the provisions of 1999 Wisconsin Act 43 and 2005 Wisconsin Act 78 the department was legislatively directed to require fire sprinklers in all new residence halls and dormitories as well as in residential facilities operated by fraternities and sororities regardless of size. These Acts correspond with the requirements for fire sprinklers contained in the 2006 edition of the IBC.

In January 2006 the fire protection systems council and the multifamily dwelling code council recommended that the department proceed to public hearing without amending the IBC sprinkler threshold requirements for residential sprinklers. A recommendation on the matter from the commercial building code council was tied.

Relating to the issue of automatic fire suppression for residential occupancies, the department conducted a survey of all 50 states and the District of Columbia. The survey was completed in May of 2006 and revealed that:

- Thirty-five states have statewide codes that apply to all new residential buildings accommodating three or more dwelling units.
- Thirty-three states have more stringent statewide fire sprinkler requirements for new residential buildings than under the current WCBC. (The WCBC requires automatic fire sprinklers in new construction at 21 or more dwelling units.)
- Twenty-three states require automatic fire sprinkler systems in all new residential buildings of three or more dwelling units, reflecting the sprinkler thresholds of the 2006 IBC.

Fire Sprinkler Triggers within the United States and District of Columbia		
Triggers for Sprinklers	Number of States	States
3 Dwelling Units or 3 Stories	23	Arkansas Connecticut Delaware* Florida Georgia Maine Maryland Massachusetts Michigan Montana Nebraska Nevada New Mexico New York Oregon Pennsylvania Rhode Island South Carolina Utah Vermont Virginia Washington Wyoming
4 Dwelling Units	1	Alaska
5 Dwelling Units or 11 Occupants	1	California
12 Dwelling Units or 2 Stories	1	New Jersey
17 Dwelling Units or 3 Stories	7	Indiana Minnesota New Hampshire North Carolina North Dakota Ohio West Virginia and District of Columbia
21 Dwelling Units	1	Wisconsin *
3 Stories	1	Kentucky
No Statewide Code	15	Alabama Arizona Colorado Hawaii Idaho Illinois Iowa Kansas Louisiana Mississippi Missouri Oklahoma South Dakota Tennessee Texas

*Whenever building is greater 10,000 square feet.

Residential fires cause over 80 percent of the annual civilian fire fatalities in the United States. It is estimated that 3,030 civilian fire fatalities and 13,825 civilian fire injuries occurred in residential occupancies in 2005. (National Fire Protection Association Report – Fire Loss in the United States During 2005, July 2006) A U.S Fire Administration special report reveals that from 2001 to 2004 smoke alarms operated in 34 percent of fatal apartment fires and 12 percent of fatal one- and two- family dwelling fires. (OLS Newsletter, Vol. 21, Nos. 9 & 10)

The department surveyed all 860 Wisconsin fire departments in an attempt to identify the number of civilian and firefighter fire fatalities that had occurred in residential occupancies since 2001. As of September 1, 2006, 560 fire departments have reported:

- Two hundred forty-two civilian fire fatalities occurred in residential occupancies.
- Thirty-three fire fatalities occurred in residential buildings containing 3 to 20 dwelling units, twenty-eight of which occurred in buildings with 3 to 8 dwelling units.
- Eleven fire fatalities occurred in residential buildings containing more than 21 dwelling units.
- Eleven fire fatalities occurred in residential buildings where the number of dwelling units was unknown.
- One hundred eighty-seven of the fire fatalities occurred in one- and two- family dwellings.
- Two firefighter fatalities; one as a result of a heart attack and the other in a single family dwelling fire as a result of a collapsing floor.

The department studied the sprinkler installation costs of 64 recently constructed multifamily dwellings in Wisconsin. Sprinkler installation costs ranged from \$0.59 to \$3.33 per square foot of building area for the projects. The following table shows the number of buildings studied and the average cost per square foot for buildings in three size categories.

Average Reported Costs of Fire Sprinklers in Dollars/Sq. Ft.			
No. of Dwelling Units in Building	3 – 8	9 – 16	17 and up
No. of Buildings	27	17	20
Average cost per square foot	\$1.87/sq. ft.	\$1.45/sq. ft.	\$1.44/sq. ft.

The following table shows the estimated average sprinkler installation costs as a percentage of the estimated average total building construction cost for three building categories and whether urban or rural water supplies were available for the sprinkler system.

Average Estimated Cost of Fire Sprinklers as a Percent of Total Building Construction Cost*			
No. of Dwelling Units in Building	3 – 8	9 – 16	17 and up
No. of Buildings Studied	27	17	20
Average % of total cost (urban water)	1.53%	1.85%	2.01%
Average % of total cost (rural water)**	2.98%	2.62%	2.56%

*Total building construction and sprinkler costs were estimated utilizing RSMMeans software based upon the location and type of construction for each of the 64 buildings.

**The sprinkler installation cost included an additional \$25,000 estimated to cover a water supply reservoir and pump for those projects where an urban water supply was unavailable.

The department compared the impact of increased construction costs due to fire sprinklers for residential occupancies to the cost of mortgage interest. Over the life of a 30-year mortgage, a one percent increase in the amount financed results in approximately the same cost to the consumer as a one-tenth of a percent increase in the mortgage interest rate. Put another way, a two percent increase in construction costs could be expected to impact consumers as much as a two-tenths percent increase in their mortgage rates. The department anticipates that consumers may react to increased costs due to fire sprinklers in much the same way that they react to other cost increases by reducing amenities or reducing the size of the building. A two percent reduction to a 900 square foot dwelling unit is 18 square feet or 6 inches along 36 feet of exterior wall.

Although fire sprinklers may increase the cost of construction, sprinklers do not increase the cost of land. In fact land costs on a per dwelling unit basis may decrease where fire sprinklers are utilized given that an increase in the maximum distance between a sprinklered building and fire department access roads is permitted.

The annual cost of code-required tests on fire sprinkler systems, for apartment and condominium buildings containing three to twenty dwelling units, ranges from \$300 to \$550, according to a major mechanical contractor active across Wisconsin.

The department found that the sprinkler installation costs in the above study were consistent with the current valuation estimates which are published by Marshall and Swift/Boeckh, LLC, as an industry benchmark for real estate appraisers throughout the country. Consequently, these costs are widely recognized as increasing the assessable or appraisable value of a building, which means these costs can be recouped when the building is sold.

Substantial insurance savings can result from the installation of fire sprinkler systems. Published accounts describe fire insurance savings of 5 to 40% for residential occupancies that are served by fire sprinklers. Savings vary by building construction type, location and type of usage. One insurance industry expert advised Commerce that reduced insurance premiums for sprinklered apartment and condominium buildings may pay for the cost of the sprinkler system over a period of 10 to 15 years.

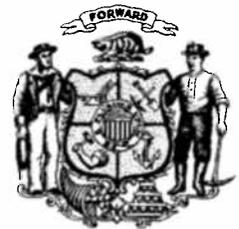
Substantial savings can also be expected to accrue from the fire damage that would not occur because of the additional fire sprinkler protection. Reported data shows that residential fires caused an estimated \$6.8 billion of direct property loss in the United States in 2005. Wisconsin's annual per capita proportion of that loss would be about \$126 million.

Automatic fire sprinkler protection has an established worldwide record. Sprinkler protection has been attributed with reducing and often times eliminating the following effects from fires:

- Loss of life, both human and animal
- Physical injuries from smoke inhalation, burns, falls and contusions
- Mental anguish and distress
- Medical costs
- Lost wages
- Personal property loss
- Real property loss



WISCONSIN STATE LEGISLATURE





STEVE WIECKERT

STATE REPRESENTATIVE

July 27, 2007

Secretary Mary P. Burke
Wisconsin Department of Commerce
P.O. Box 7970
Madison, WI 53707

HAND DELIVERED

Dear Secretary Burke:

The purpose of this letter is to respectfully request a meeting with you or your representative to discuss Clearinghouse Rule 06-120, relating to the Fire Prevention and Wisconsin Commercial Building Codes.

This rule is currently before the Assembly Committee on Housing. As Chairperson of the Committee, I believe additional time for Committee review of the rule and the opportunity for discussion of its potential impacts are appropriate.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Steve Wieckert". The signature is written in a cursive style and is positioned above a horizontal line.

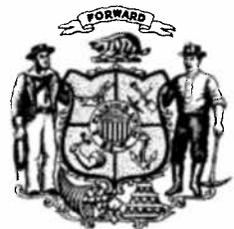
Representative Steve Wieckert
Chairman, Assembly Committee on Housing

cc: Patrick Fuller, Assembly Chief Clerk
Members of the Assembly Committee on Housing

IDEALS, PRINCIPLES, PATRIOTISM



WISCONSIN STATE LEGISLATURE





P. O. Box 7970
Madison, Wisconsin 53707
(608) 266-1018
TDD #: (608) 264-8777

Jim Doyle, Governor
Mary P. Burke, Secretary

July 30, 2007

The Honorable Steve Wieckert
State Representative
Wisconsin State Capitol
PO Box 8953
Madison, WI 53707-8953

Dear Representative Wieckert:

Thank you for your letter dated July 27, 2007, regarding
Clearinghouse Rule 06-120, relating to the Fire Prevention and
Wisconsin Commercial Building Codes.

I would be happy to meet for further discussion. Please contact
my assistant, Deborah Godt, at 608/266-7088 to schedule at your
convenience.

Best regards,

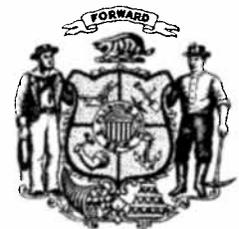
A handwritten signature in black ink, appearing to read "M. P. Burke". The signature is fluid and cursive.

MARY P. BURKE
Secretary

MPB:dg



WISCONSIN STATE LEGISLATURE



CRule
06-120

Aug 10
2007

3:45 PM

IMPORTANT-
THE GAME PLAN
FOR THE EXECUTIVE
SESSION OF THE
ASSEMBLY HOUSING
COMMITTEE, PREPARED
BY MARY MATTHIAS-
OF LEGISLATIVE
COUNCIL.

Becher, Scott

From: Matthias, Mary
Sent: Friday, August 10, 2007 3:45 PM
To: Becher, Scott
Subject: committee procedures for CHR 06-120

Hi Scott-

Per our conversation this morning, here is an outline of the procedure the committee should follow for objecting to CHR 06-120.

Notice

You have already sent out the appropriate notice for the hearing and executive session.

Hearing

At the hearing, the Department of Commerce should appear to explain the proposed rule and answer questions from the committee about the rule.

Executive Session

Chairperson Wieckert: "The committee will now go into executive session. Will the clerk please call the roll?"

Scott: Call the roll and state that a quorum is present.

At this time, motions are in order. I will prepare a motion for Chairperson Wieckert to use and I'll have copies available for all the members. The motion will object to only the portion of the rule pertaining to automatic fire sprinklers. Commerce will be able to go ahead and promulgate the rest of the rule.

Chairperson Wieckert: "I move that, pursuant to s. 227.19(4)(d)6., the Committee object to proposed s. Comm. 62.0903(6) in Clearinghouse Rule 06-120. "

The motion will need a second.

After the motion is seconded, Chairperson Wieckert will **ask if there is any discussion on the motion.**

After discussion is concluded--

Chairperson Wieckert: Will the clerk please call the roll on the question of objection to the portion of Clearinghouse Rule 06-120 pertaining to automatic fire sprinklers in multi-family dwellings".

Scott: call the roll and announce whether the motion passes or fails.

A majority if the quorum is needed for the motion to be approved.

The meeting of the committee may now be concluded.

After the meeting

If the motion to object is successful, Scott must report the proposed rule and the objection to the Assembly Chief clerk within 5 working days. I will prepare a letter for Scott to send to the Chief Clerk explaining the committee's action.

Mary Matthias
Senior Staff Attorney
Wisconsin Legislative Council Staff
Ph.(608)266-0932;Fax (608)266-3830

DRAFT

Rep. Daniel LeMahieu
Co-chair, Joint Committee on Review of Administrative Rules
Room 17 North
State Capitol
Madison, WI 53708

Senator Robert Jauch
Co-chair, Joint Committee on Review of Administrative Rules
Room 118 South
State Capitol
Madison, WI 53707-7882

Dr. Representative LeMahieu and Senator Jauch:

As chairperson of the Assembly Committee on Housing, I am writing to notify you that on August 21, 2007, the Assembly Committee on Housing voted to object to a portion of Clearinghouse Rule (CHR) 06-120, relating to Fire Prevention and the Commercial Building Code.

The motion to object was as follows:

Pursuant to s. 227.19(4)(d)6, stats., the Assembly Committee on Housing objects to proposed s. Comm. 62.0903(6) in Clearinghouse Rule 06-120.

The motion passed on a vote of Ayes, ____; Noes, ____; and Absent, ____.

The Committee clerk has reported CHR 06-120 to the office of the Assembly Chief Clerk. I anticipate that the rule will be referred to your committee in the near future.

Thank you for your attention to this matter.

Sincerely,

Representative Steven Wieckert
Chairperson, Assembly Committee on Housing

cc: Patrick Fuller, Assembly Chief Clerk



WISCONSIN STATE LEGISLATURE





WISCONSIN LEGISLATIVE COUNCIL

*Terry C. Anderson, Director
Laura D. Rose, Deputy Director*

TO: MEMBERS OF THE ASSEMBLY COMMITTEE ON HOUSING
FROM: Mary Matthias, Senior Staff Attorney
RE: Provisions of Clearinghouse Rule 06-120 Pertaining to Automatic Fire Sprinklers
DATE: August 10, 2007

A hearing and an executive session on Clearinghouse Rule (CHR) 06-120, relating to construction, use, and maintenance of public buildings and places of employment, have been scheduled for your committee on Tuesday, August 21, 2007 at 10:00 am. Chairperson Wieckert has indicated that the only aspect of the rule that has raised concerns are those that expand the types of buildings for which automatic fire sprinkler systems are required.

Attached to this memorandum, provided to committee members at the request of Chairperson Wieckert, are excerpts from the Department of Commerce Analysis to CHR 06-120 that explains the provisions of the rule pertaining to automatic fire sprinklers, discusses the department's rationale for the proposed changes, and provides information on automatic fire sprinkler requirements in other states.

Also attached to this memorandum is an excerpt from the Legislative Reference Bureau's *Comparative Summary of Budget Provisions* that describes provisions pertaining to automatic fire sprinklers that are included in the most recent version of the 2007-08 Biennial Budget Bill (Assembly Substitute Amendment 1 to 2007 Senate Bill 40).

If you have any questions, please feel free to contact me directly at the Legislative Council staff offices.

MM:ty

Attachments

Excerpts From the Department of Commerce Analysis of Proposed Rules for Clearinghouse Rules 06-120, Relating to Construction, Use, and Maintenance of Public Buildings and Places of Employment and Affecting Small Businesses

5. Summary of Proposed Rules

5A. Summary of Chapters Comm 7, 9 and 14 Relating to Fire Prevention and Comm 60 to 66 Relating to the Commercial Building Code

Currently, the Department adopts by reference the 2000 editions of the ICC suite of building codes - the *International Building Code*[®] (IBC), the *International Energy Conservation Code*[®], (IECC), the *International Mechanical Code*[®] (IMC) and the *International Fuel Gas Code*[®] (IFGC) - and makes Wisconsin modifications to these codes within the WCBC. The Department also adopts by reference the 2000 edition of the NFPA fire prevention code, NFPA 1. The department proposes to adopt the 2006 editions of these ICC and NFPA codes.

Many of the current Wisconsin modifications under the WCBC are proposed to be repealed as a result of changes occurring in the 2006 editions of ICC codes. The proposed update of the WCBC would apply to design and construction of new buildings and modifications to existing buildings.

The following summaries identify the substantive changes based on the topic area reviewed by the Department's various advisory councils.

5C. Fire Protection Systems

The prominent change with incorporating the latest edition of the IBC relating to fire protection systems is the requirement for automatic fire sprinkler system protection throughout all buildings with a Group R (Residential Occupancies) fire area, regardless of the number of dwelling units or the size of the building. Similar to the IBC, a proposed Wisconsin provision would not require providing sprinklers throughout all townhouses of 3 stories or less. For these types of townhouses, the Wisconsin proposed modifications reflect the statutory options and thresholds under s. 101.14 (4m), Stats., requiring either two-hour fire resistance construction or sprinkler protection when the building contains more than 20 dwelling units or the accumulative floor areas of the dwelling units exceed 16,000 square feet.

Rules are proposed to clarify the necessity of providing automatic fire sprinkler protection for buildings greater than 60 feet in height as required by the statutes. A proposed Wisconsin modification will address the protection of exterior balconies and ground-floor patios serving dwelling units in buildings of Type V construction and protected by a 13R sprinkler system.

8. Summary of Factual Data and Analytical Methodologies

The primary methodology for updating the Wisconsin Fire Prevention Code, chapter Comm 14, and the Wisconsin Commercial Building Code, chapters Comm 60 to 66, has been a review and

assessment of the latest editions of the national model codes that serve as the basis for the two Wisconsin codes. The department's review and assessment process involved the participation of various advisory councils. The members of the councils represent many stakeholders involved in the building industry, including designers, contractors, developers, regulators, labor, the fire service and the public. (A listing of the councils and the current members is provided at the end of this analysis.)

The department believes that the national model codes reflect current societal values with respect to protecting public health, safety and welfare in the design, construction, use, operation and maintenance of commercial buildings that serve as public buildings and places of employment. The two model code organizations (National Fire Protection Association, NFPA, and International Code Council, ICC) both utilize a process open to all parties in the development of their codes. More information, including background information in the development of the respective 2006 model code editions, may be obtained at the NFPA web site, <http://www.nfpa.org>, and the ICC web site, <http://www.iccsafe.org>.

For the Commercial Building Code, the review and assessment process involved an examination of the revisions that occurred in the 2003 and 2006 editions of the IBC, IECC, IMC, IFGC and IEBC. The assessment included the evaluation of the current rules under chapters Comm 61 to 65 that modified these ICC codes. In conjunction with the advisory councils, determinations are made as to whether the various technical requirements under the latest editions of the model codes are reasonable for addressing potential risks or concerns, and promoting the public health, safety and welfare. Such determinations may be made based upon experience, forecasts, intuition or projection.

The requirement for more automatic fire suppression in residential occupancies is the most prominent change in this proposal. The IBC has required automatic fire sprinklers in all buildings with Group R fire areas, other than townhouses, since 2001.

Wisconsin law under, s. 101.14 (4) (c), Stats., references the building code of the Building Officials and Code Administrators International, Inc., now the IBC, as a benchmark for establishing fire suppression rules to protect public health, safety and welfare for public buildings and places of employment, which includes multifamily dwellings.

Under the provisions of 1999 Wisconsin Act 43 and 2005 Wisconsin Act 78 the department was legislatively directed to require fire sprinklers in all new residence halls and dormitories as well as in residential facilities operated by fraternities and sororities regardless of size. These Acts correspond with the requirements for fire sprinklers contained in the 2006 edition of the IBC.

In January 2006 the fire protection systems council and the multifamily dwelling code council recommended that the department proceed to public hearing without amending the IBC sprinkler threshold requirements for residential sprinklers. A recommendation on the matter from the commercial building code council was tied.

Relating to the issue of automatic fire suppression for residential occupancies, the department conducted a survey of all 50 states and the District of Columbia. The survey was completed in May of 2006 and revealed that:

- Thirty-five states have statewide codes that apply to all new residential buildings accommodating three or more dwelling units.

- Thirty-three states have more stringent statewide fire sprinkler requirements for new residential buildings than under the current WCBC. (The WCBC requires automatic fire sprinklers in new construction at 21 or more dwelling units.)
- Twenty-three states require automatic fire sprinkler systems in all new residential buildings of three or more dwelling units, reflecting the sprinkler thresholds of the 2006 IBC.

Fire Sprinkler Triggers within the United States and District of Columbia				
Triggers for Sprinklers	Number of States	States		
3 Dwelling Units or 3 Stories	23	Arkansas Connecticut Delaware* Florida Georgia Maine Maryland Massachusetts	Michigan Montana Nebraska Nevada New Mexico New York Oregon Pennsylvania	Rhode Island South Carolina Utah Vermont Virginia Washington Wyoming
4 Dwelling Units	1	Alaska		
5 Dwelling Units or 11 Occupants	1	California		
12 Dwelling Units or 2 Stories	1	New Jersey		
17 Dwelling Units or 3 Stories	7	Indiana Minnesota New Hampshire	North Carolina North Dakota Ohio	West Virginia and District of Columbia
21 Dwelling Units	1	Wisconsin		
3 Stories	1	Kentucky		
No Statewide Code	15	Alabama Arizona Colorado Hawaii Idaho	Illinois Iowa Kansas Louisiana Mississippi	Missouri Oklahoma South Dakota Tennessee Texas

*Whenever building is greater 10,000 square feet.

Residential fires cause over 80 percent of the annual civilian fire fatalities in the United States. It is estimated that 3,030 civilian fire fatalities and 13,825 civilian fire injuries occurred in residential occupancies in 2005. (National Fire Protection Association Report – Fire Loss in the United States During 2005, July 2006) A U.S Fire Administration special report reveals that from 2001 to 2004 smoke alarms operated in 34 percent of fatal apartment fires and 12 percent of fatal one- and two- family dwelling fires. (OLS Newsletter, Vol. 21, Nos. 9 & 10)

The department surveyed all 860 Wisconsin fire departments in an attempt to identify the number of civilian and firefighter fire fatalities that had occurred in residential occupancies since 2001. As of September 1, 2006, 560 fire departments have reported:

- Two hundred forty-two civilian fire fatalities occurred in residential occupancies.

- Thirty-three fire fatalities occurred in residential buildings containing 3 to 20 dwelling units, twenty-eight of which occurred in buildings with 3 to 8 dwelling units.
- Eleven fire fatalities occurred in residential buildings containing more than 21 dwelling units.
- Eleven fire fatalities occurred in residential buildings where the number of dwelling units was unknown.
- One hundred eighty-seven of the fire fatalities occurred in one- and two- family dwellings.
- Two firefighter fatalities; one as a result of a heart attack and the other in a single family dwelling fire as a result of a collapsing floor.

The department studied the sprinkler installation costs of 64 recently constructed multifamily dwellings in Wisconsin. Sprinkler installation costs ranged from \$0.59 to \$3.33 per square foot of building area for the projects. The following table shows the number of buildings studied and the average cost per square foot for buildings in three size categories.

Average Reported Costs of Fire Sprinklers in Dollars/Sq. Ft.			
No. of Dwelling Units in Building	3 – 8	9 – 16	17 and up
No. of Buildings	27	17	20
Average cost per square foot	\$1.87/sq. ft.	\$1.45/sq. ft.	\$1.44/sq. ft.

The following table shows the estimated average sprinkler installation costs as a percentage of the estimated average total building construction cost for three building categories and whether urban or rural water supplies were available for the sprinkler system.

Average Estimated Cost of Fire Sprinklers as a Percent of Total Building Construction Cost*			
No. of Dwelling Units in Building	3 – 8	9 – 16	17 and up
No. of Buildings Studied	27	17	20
Average % of total cost (urban water)	1.53%	1.85%	2.01%
Average % of total cost (rural water)**	2.98%	2.62%	2.56%

*Total building construction and sprinkler costs were estimated utilizing RSMeans software based upon the location and type of construction for each of the 64 buildings.

**The sprinkler installation cost included an additional \$25,000 estimated to cover a water supply reservoir and pump for those projects where an urban water supply was unavailable.

The department compared the impact of increased construction costs due to fire sprinklers for residential occupancies to the cost of mortgage interest. Over the life of a 30-year mortgage, a one percent increase in the amount financed results in approximately the same cost to the consumer as a one-tenth of a percent increase in the mortgage interest rate. Put another way, a two percent increase in construction costs could be expected to impact consumers as much as a two-tenths percent increase in their mortgage rates. The department anticipates that consumers may react to increased costs due to fire sprinklers in much the same way that they react to other cost increases by reducing amenities or

reducing the size of the building. A two percent reduction to a 900 square foot dwelling unit is 18 square feet or 6 inches along 36 feet of exterior wall.

Although fire sprinklers may increase the cost of construction, sprinklers do not increase the cost of land. In fact land costs on a per dwelling unit basis may decrease where fire sprinklers are utilized given that an increase in the maximum distance between a sprinklered building and fire department access roads is permitted.

The annual cost of code-required tests on fire sprinkler systems, for apartment and condominium buildings containing three to twenty dwelling units, ranges from \$300 to \$550, according to a major mechanical contractor active across Wisconsin.

The department found that the sprinkler installation costs in the above study were consistent with the current valuation estimates which are published by Marshall and Swift/Boeckh, LLC, as an industry benchmark for real estate appraisers throughout the country. Consequently, these costs are widely recognized as increasing the assessable or appraisable value of a building, which means these costs can be recouped when the building is sold.

Substantial insurance savings can result from the installation of fire sprinkler systems. Published accounts describe fire insurance savings of 5 to 40% for residential occupancies that are served by fire sprinklers. Savings vary by building construction type, location and type of usage. One insurance industry expert advised Commerce that reduced insurance premiums for sprinkled apartment and condominium buildings may pay for the cost of the sprinkler system over a period of 10 to 15 years.

Substantial savings can also be expected to accrue from the fire damage that would not occur because of the additional fire sprinkler protection. Reported data shows that residential fires caused an estimated \$6.8 billion of direct property loss in the United States in 2005. Wisconsin's annual per capita proportion of that loss would be about \$126 million.

Automatic fire sprinkler protection has an established worldwide record. Sprinkler protection has been attributed with reducing and often times eliminating the following effects from fires:

- Loss of life, both human and animal
- Physical injuries from smoke inhalation, burns, falls and contusions
- Mental anguish and distress
- Medical costs
- Lost wages
- Personal property loss
- Real property loss
- Cost of relocating and housing displaced residents
- Cost fire department and other emergency services

The process for reviewing and assessing the Fire Prevention Code was accomplished in a manner similar to that for the Commercial Building Code. The 2003 and 2006 editions of NFPA 1 were evaluated in relationship to the current rules of chapter Comm 14. Chapters Comm 7, Explosive Materials, and Comm 9, Manufacture of Fireworks, were also evaluated to determine where the various codes overlapped and whether the rules and codes could be consolidated.

Excerpt From Comparative Summary, Budget Provisions of the Senate and Assembly,
Legislative Reference Bureau, July 16, 2007

23. AUTOMATIC FIRE SPRINKLER SYSTEMS IN MULTIFAMILY DWELLINGS AND COMMUNITY-BASED RESIDENTIAL FACILITIES

Senate: No change to Joint Finance.

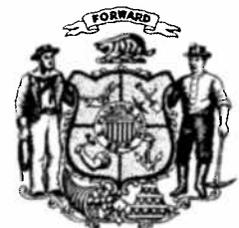
Assembly: Change the requirements for automatic fire sprinkler and fire resistance building materials in multifamily dwellings and community-based residential facilities (CBRFs) in the following ways:

- a. Eliminate the minimum floor area requirements in multifamily dwellings for the sprinkler requirements to apply. Currently, the minimum requirements for sprinkler requirements include a total floor area of the dwelling units which exceeds 16,000 square feet, and a floor space of the common areas which exceeds a certain square footage based on the type of construction used in the complex.
- b. Reduce the threshold number of multifamily dwelling units for which sprinklers are required from 21 to 13. Currently, a multifamily dwelling must have an automatic sprinkler system or two-hour fire resistance if it has more than 20 units.
- c. Specify that the sprinkler requirements apply only to multifamily dwellings with more than 12 units that are served by a public water supply that has adequate pressure for the sprinklers and the fire resistance requirements only apply to complexes with more than 12 units that are not served by a public water system with adequate pressure for fire sprinklers.
- d. Prohibit Commerce from requiring an automatic sprinkler system or two-hour fire resistance in any multifamily dwelling that has 12 or fewer dwelling units.
- e. Specify that the changes in (a) through (d) take effect two years after enactment (first day of the 25-month).
- f. Require that a CBRF that is initially licensed two years after the effective date of the bill must be equipped with a National Fire Protection Association 13, 13R, or 13D automatic sprinkler system, as specified in the most current automatic sprinkler systems handbook of the National Fire Protection Association, unless exempted by the Department of Health and Family Services under standards that DHFS would specify by rule. The sprinkler system would have to be equipped with residential sprinkler heads in all bedrooms, apartments, other habitable rooms, and corridors of the CBRF and would have to be connected to the fire alarm system of the CBRF.

- g. Repeal the authority of local units of government to enact or enforce ordinances that impose requirements for automatic fire sprinkler systems or fire resistance materials, including ordinances grandfathered in under current law that were in effect when the current sprinkler requirements were originally enacted. Currently, local governments are authorized to enact local ordinances that meet the state fire sprinkler systems, or that are stricter in that they cover a multifamily dwelling that is smaller in size than 21 units under the state requirements. The local ordinances grandfathered in under current law or applying to smaller multifamily dwellings would not apply when the changes in (a) through (d) take effect two years after enactment.
- h. Require that a multifamily dwelling or a CBRF must be constructed so that any exterior point at the ground level of the multifamily dwelling or CBRF is not farther than 250 feet from a driveable surface. The driveable surface may not be paved unless the lack of pavement is impracticable. In addition, any interior point in the multifamily dwelling or CBRF may not be farther than 100 feet from the nearest emergency exit. For multifamily dwellings, the effective date would be dwellings for which initial construction is begun on or after the day after the effective date of the budget bill. (Current law and the provision do not define "initial construction.") For CBRFs, the effective date would be CBRFs for which initial construction is begun on or after the first day of the seventh month after the effective date of the budget bill.
- i. Require that Commerce maintain records for each fire that involves a building and that results in one or more fatalities, which include all of the following information: (a) the age of the building; (b) what the building was used for; (c) the cause of the fire; and (d) any other relevant information concerning the building, as determined by Commerce. Currently, Commerce is required to maintain records of all fires occurring in the state, but the statutes do not specify what information must be included in the records.



WISCONSIN STATE LEGISLATURE





WISCONSIN LEGISLATIVE COUNCIL

*Terry C. Anderson, Director
Laura D. Rose, Deputy Director*

TO: REPRESENTATIVE STEVE WIECKERT

FROM: Scott Grosz, Staff Attorney

RE: Recent Administrative Code Changes Related to Fire Safety in Apartments and Single-Family Dwellings

DATE: August 17, 2007

CRule
06-120
Folder

This memorandum responds to your request for examples of recent changes related to fire safety in the sections of the Wisconsin Administrative Code that relate to apartments and single-family dwellings.

The Uniform Dwelling Code, chs. Comm 20 to 25, Wis. Adm. Code, applies to one- and two-family dwellings. [s. Comm 20.01 (1), Wis. Adm. Code.] The Uniform Dwelling Code contains several sections relating to fire safety. Additionally, ch. Comm 14, Wis. Adm. Code, relates to fire safety in public buildings and places of employment. Under the section, a public building includes a residential dwelling with three or more tenants. [s. 101.01 (12), Stats.] Chapter Comm 60 to 65, Wis. Adm. Code, also applies to public buildings and places of employment, and contains items that relate to fire safety.

The following items are examples of recent fire safety changes to Commerce chapters of the Wisconsin Administrative Code.

- **CR 04-043** Fire safety changes in this rule include:
 - Creation of rules regarding sprinkler systems in existing buildings. [s. Comm 62.0903 (1m), Wis. Adm. Code.]
- **CR 04-016** Fire safety changes in this rule include:
 - Creation of several sections of ch. Comm 62, including ss. 62.0302, 62.0303, 62.0304, 62.0305, 62.0603, 62.0706, 62.0711, 62.0715, subsections of 62.0903, subsections of 62.0904, subsections of 62.0907, and 62.0910, and others. [ch. Comm 62, Wis. Adm. Code.]

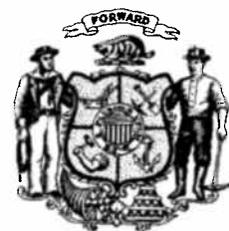
- **CR 02-077** Fire safety changes in this rule include:
 - Clarification that the two required exits from the first floor must be doors. [s. Comm 21.03 (1) (a), Wis. Adm. Code.]
 - Addition of requirements for exit separation on the first floor. [s. Comm 21.03 (1) (e), Wis. Adm. Code.]
 - Amendment of fire separation requirements between an attached garage and any portion of the dwelling to require 3/4-hour fire-resistive construction. The existing rule specified one-hour fire resistive construction. [s. Comm 21.08 (1) (a) 1., Wis. Adm. Code.]
- **CR 01-139** Fire safety changes in this rule include:
 - Amendment of rule notes to refer to rules of the Department of Natural Resources and local ordinances and regulations regarding open burning and bonfires. [s. Comm 14.03 (9) (b) Note and (10) Note (1), Wis. Adm. Code.]
- **CR 00-179** Fire safety changes in this rule include:
 - Repeal and recreation of ch. Comm 14, relating to fire prevention. [ch. Comm 14, Wis. Adm. Code.]
 - Create chs. Comm 60 to 65, relating to public buildings and places of employment. Sections of ch. Comm 60 to 65 that are related to fire safety include ss. Comm 61.34 and 61.38, as well as several sections of ch. Comm 62. [chs. Comm 60 to 65, Wis. Adm. Code.]
- **CR 00-073** Fire safety changes in this rule include:
 - Allowance of additional permanent fixtures to be installed under an egress window. [s. Comm 21.03 (6) (d) and (e), Wis. Adm. Code.]
 - Addition of requirements regarding fireblocking and fireblocking materials. [s. Comm 21.085, Wis. Adm. Code.]
 - Addition of the requirement for a hard-wired smoke detector with battery backup to be placed inside each bedroom in new construction. [s. Comm 21.09, Wis. Adm. Code.]
 - Allowance of foam plastic to be used in the box sill area of the basement without the need to be covered with a thermal barrier. [s. Comm 21.11, Wis. Adm. Code.]

If you have any questions, please feel free to contact me directly at the Legislative Council staff offices.

SG:jal



WISCONSIN STATE LEGISLATURE





Chief

Joint Municipal Fire Commission

Eagle River Area Fire Department

820 East Pine Street

Eagle River, Wisconsin 54521

(715) 479-8835 Fax (715) 477-8835



Patrick Weber

To: Chair Steve Wieckert, Members
Assembly Housing Committee

Fr: Chief Patrick Weber

Da: August 17, 2007

Re: Fire service support for adoption of Commerce Clearinghouse Rule 06-120

A model code that helps save more fire fighter and citizen lives is a model code Wisconsin should adhere to. As a member of the fire service, I fully support the Department of Commerce clearinghouse rule 06-120 proposing adoption of the 2006 International Building Code (IBC). In particular, the state should adopt the recommendation to install fire sprinkler systems in newly constructed multifamily dwellings of three (3) units and greater.

Fire safety is certainly about educating the public; that is part of my job. Yet despite our best efforts, human error will always play a role and one mistake can cost a life. When that happens, a fire sprinkler system can serve as the first responder. It can also help save my life and the lives of my colleagues upon our arrival to the scene.

We've heard the cost arguments; they just don't add up. The fact is the ability to save money in other areas of building and developing exists when a fire sprinkler system is installed. Fewer fire doors, fire walls and flexibility with materials – to name a few – are ways in which cost savings can be achieved. All while providing the tenants with a high quality, safe building.

For the last 35 years, I have worked as a firefighter and have witnessed many unfortunate fatal and nonfatal injuries and loss of property caused by fires. Fires are unforgiving and the best protection available is an automatic fire sprinkler system. It means having protection in your home 24 hours a day, 7 days a week.

I urge your support of clearinghouse rule 06-120; I urge you to bring Wisconsin up to par with national standards in building safety. I can assure you there is no better protection against fire for Wisconsin's families than these systems and I can assure you that any family who has suffered a loss from fire would tell you no cost is too great for protection. Thank you for your consideration.

Respectfully submitted,

Patrick Weber

Patrick Weber, Fire Chief

Eagle River Area Fire Department