

Pt.
02

97-138-UNIFORM DUBELLING CODE
I/HE 20-25 COMMERCE

RULE REPORT

Department of Commerce

Rule No.: Chapters ILHR 20-25

Relating to: Uniform Dwelling Code

Agency contact person for substantive questions:

Name Leroy Stublaski

Title Uniform Dwelling Code Coordinator

Telephone Number (608)267-5113

Agency contact person for internal processing:

Name Duane Hubeler

Title Code Consultant

Telephone Number (608)266-1390

1. Agency statutory authority under which the agency intends to promulgate the rule(s).
101.02 (1), 101.63 (1), 101.64 (3), 101.72 and 101.74
2. Citation of federal regulations which require adoption or which are relevant to the proposed rule(s).
Section 304 (a) of the Energy Policy Act of 1992
3. Citation of court decisions which are applicable to the proposed rule(s).
None known.

Continued on reverse side

4. Description of the proposed rule(s).

The proposed rules consist of various changes to chapters ILHR 20 to 23 relating to the Uniform Dwelling Code. Many of the changes are made for general clarification, to incorporate code interpretations, and to update adopted standards. There are some new, substantive changes proposed that were discussed with the UDC Council in accordance with the scoping statement.

The major change consists of a complete repeal and recreation of chapter ILHR 22 relating to energy efficiency. Other changes relate to mechanical attachment of roof trusses and rafters, fire separation between adjacent zero-lot-line dwellings, additional requirements for safety glazing in bathrooms and stairways, and less stringent requirements for drain tile and sump pumps.

5. Reason for the proposed rule(s).

Section 101.63 (5), Stats., requires the department to review the rules contained in the Uniform Dwelling Code on a biennial basis.

FISCAL ESTIMATE
DOA-2048 (R10/94)

ORIGINAL
 CORRECTED

UPDATED
 SUPPLEMENTAL

LRB or Bill No./Adm. Rule No.
Chapters ILHR 20-25
Amendment No. if Applicable

Subject

Miscellaneous changes to Uniform Dwelling Code, including a complete rewrite of chapter ILHR 22.

Fiscal Effect

State: No State Fiscal Effect

Check columns below only if bill makes a direct appropriation or affects a sum sufficient appropriation

Increase Existing Appropriation
 Decrease Existing Appropriation
 Create New Appropriation
 Increase Existing Revenues
 Decrease Existing Revenues

Increase Costs - May be Possible to Absorb Within Agency's Budget Yes No
 Decrease Costs

Local: No local government costs

1. Increase Costs
 Permissive Mandatory

3. Increase Revenues
 Permissive Mandatory

5. Types of Local Governmental Units Affected:

Towns Villages Cities

2. Decrease Costs
 Permissive Mandatory

4. Decrease Revenues
 Permissive Mandatory

Counties Others _____

School Districts WTCS Districts

Fund Sources Affected

GPR FED PRO PRS SEG SEG-S

Affected Ch. 20 Appropriations

Not applicable

Assumptions Used in Arriving at Fiscal Estimate

The Uniform Dwelling Code has been in effect since 1980. There are no new regulation schemes contained in these proposed changes. Although there is a time lag or learning curve involved in any administrative rule change, we do not expect revenues to be affected.

Long-Range Fiscal Implications

None known or anticipated

Agency/Prepared by: (Name & Phone No.)
Commerce, Safety & Buildings Division
Duane Hubeler (608)266-1390

Authorized Signature/Telephone No.

 6-8976

Date

5-26-98

FISCAL ESTIMATE WORKSHEET
Detailed Estimate of Annual Fiscal Effect
DOA-2047(R10/94)

ORIGINAL
 CORRECTED

UPDATED
 SUPPLEMENTAL

LRB or Bill No./Adm. Rule No. Amendment No.
Chapters ILHR 20-25

Subject

Miscellaneous changes to Uniform Dwelling Code, including a complete rewrite of chapter ILHR 22.

I. One-time Costs or Revenue Impacts for State and/or Local Government (do not include in annualized fiscal effect):

None

II. Annualized Costs:	Annualized Fiscal impact on State funds from:	
	Increased Costs	Decreased Costs
A. State Costs By Category	\$	\$ -
State Operations - Salaries and Fringes		
(FTE Position Changes)	(0 FTE)	(- 0 FTE)
State Operations - Other Costs		-
Local Assistance		-
Aids to Individuals or Organizations		-
TOTAL State Costs By Category	\$ 0	\$ -0
B. State Costs By Source of Funds		
GPR	\$	\$ -
FED		-
PRO/PRS	0	-0
SEG/SEG-S		-
III. State Revenues- Complete this only when proposal will increase or decrease state revenues (e.g., tax increase, decrease in license fee, etc.)		
GPR Taxes	\$	\$ -
GPR Earned		-
FED		-
PRO/PRS		-
SEG/SEG-S		-
TOTAL State Revenues	\$ 0	\$ -0

NET ANNUALIZED FISCAL IMPACT

STATE

LOCAL

NET CHANGE IN COSTS	\$ 0	\$ 0
NET CHANGE IN REVENUES	\$ 0	\$ 0

Agency/Prepared by: (Name & Phone No.)

Commerce, Safety & Buildings Division
Duane Hubeler (608)266-1390

Authorized Signature/Telephone No.

[Signature] 6-8976

Date

5-26-98

DEPARTMENT OF COMMERCE
PUBLIC HEARING ATTENDANCE RECORD

RULE NO.: Chapters ILHR 20-25
 RELATING TO: Uniform Dwelling Code
 LOCATION: _____
 DATE: Friday, December 12, 1997
 TIME: 11:00
 CITY: Eau Claire

Name	Representation (Business, Assoc., Group, Self, etc.)	City and State	Appearing in Support	Appearing in Opposition	Appearing for Information
Rick Bowers	ABC Trusses	Chetek WI			X
Randy Touler	Abe Truss	Chetek, WI			X
Thomas Derrich	Derrich Const Co. Inc.	New Richmond WI			X
AL BUSHK	BUSHK CONSTRUCTION INC	Don Miller WI			X
JOHN LAUTZ	LPUTZ CUSTOM BUILDERS INC	WEST SAUNING WI		X	
Bob Olson	OVHBA	Eau Claire WI			X
Dean Larson	D.R. Larson Const	Menomonee, WI		X	
MIKE MARTHAUER	MIKE'S CUSTOM HOMES	Eau Claire WI		X	
Paul K/ell	C D HENL Const	Fall Creek WI		X	
Joost Korter	Eau Claire Fire Dept.	Eau Claire, WI			X
OSCAR SEBELKEN	OSCAR SEBELKEN BUREAU OF INSURANCE	Eau Claire WI	X	X	
Bill GAUSCHKE	Fella Windows	Eau Claire WI			X

DEPARTMENT OF COMMERCE
PUBLIC HEARING ATTENDANCE RECORD

RULE NO.: Chapters ILHR 20-25

DATE: Monday, December 15, 1997

RELATING TO: Uniform Dwelling Code

TIME: 10:30

LOCATION: _____

CITY: Waukesha

Name	Representation (Business, Assoc., Group, Self, etc.)	City and State	Appearing in Support	Appearing in Opposition	Appearing for Information
Steve Mikowski	Avera Steel & Iron Supply	Milwaukee			<input checked="" type="checkbox"/>
SLAVA SAKOBYNIAK	AVERE STEEL & IRON SUPPLY	MILWAUKEE			<input checked="" type="checkbox"/>
DAN KIRINSKI	BUILDERS AND CONSUMERS	WAUKESHA WI	ALL		
Brad Cray	Independent Inspections (Bldg Insp)	Waukesha			
Bob Blankenship	Independent Ins. Insp.	Waukesha			
JOHN KLATZ	BARRB, INC.	Waukesha			
Jack Atkinson	City of West Allis	City of West Allis			
Matt Monney	Metropolitan Business Assoc	Milwaukee, WI			
John Steffen	Birnuski Bros. Builders	Waukesha, WI			
Mike Bauman	Bielink St Bros. Builders.	Waukesha			
Dale S. Vinson	Olympic Building Company Inc	Jackson WI			
Scott Blottem	KATZ BUILDERS INC	MILWAUKEE, WI			<input checked="" type="checkbox"/>
Phil Edhart	Woodhaven Homes	Pouquottee WI		<input checked="" type="checkbox"/>	
Don Hinkle	Beecher Wisconsin Realty	Dale Cade			<input checked="" type="checkbox"/>
CHARLES MADSEN	SELL	ELTHORP, WI	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

DEPARTMENT OF COMMERCE
PUBLIC HEARING ATTENDANCE RECORD

RULE NO.: Chapters ILHR 20-25 DATE: Wednesday, December 17, 1997

RELATING TO: Uniform Dwelling Code TIME: 11:00

LOCATION: _____ CITY: Green Bay

Name	Representation (Business, Assoc., Group, Self, etc.)	City and State	Appearing in Support	Appearing in Opposition	Appearing for Information
<i>Michelle Buckner</i>	<i>Town of Pitts Field</i>	<i>Green Bay WI</i>			X
<i>Thomas Collins</i>	<i>City of Appleton</i>	<i>Appleton, Wis</i>			X
<i>Craig Arnold</i>	<i>CITY OF APPLETON</i>	<i>APPLETON W.</i>			X
<i>John Johnson</i>	<i>Brown County Home Builders Assn</i>	<i>Green Bay</i>			
<i>Mike Deffo</i>	<i>Brown County Home Builders</i>	<i>Green Bay</i>		X	
<i>Joseph P. Neppa</i>	<i>INTERMEDIATE RESIDENTS</i>	<i>KAUKUNA WI</i>			X

DEPARTMENT OF COMMERCE
PUBLIC HEARING ATTENDANCE RECORD

RULE NO.: Chapters ILHR 20-25

DATE: Thursday, December 18, 1997

RELATING TO: Uniform Dwelling Code

TIME: 10:30

LOCATION: _____

CITY: Stevens Point

Name	Representation (Business, Assoc., Group, Self, etc.)	City and State	Appearing in Support	Appearing in Opposition	Appearing for Information
GARY KORNBLA	Automated Products Inc (WTMA)	MESHFIELD, WI			
Marshall Lee	MEARDS CONTRACTOR DBA	Plover, WI			
GREG MYER	SAGE LUMBER	GREEN BAY, WI			
Greg Schwern	Stock Lumber	Green Bay			
Victoria Gese	SPRINGER	ST. FR.			
MARC SWANNERS	E.B. SWANNERS INC.	St. Fr.			
MIKE CHARLES	Baldwin's Commerce	St. Rt. Sparta			
RICHARD HUBBARD	Village of Plover	Plover WI			
M.P. McEVROY	ERZYKLA CUSTOM HOMES	Plover WI			

DEPARTMENT OF COMMERCE
PUBLIC HEARING ATTENDANCE RECORD

RULE NO.: Chapters ILHR 20-25

DATE: Friday, December 19, 1997

RELATING TO: Uniform Dwelling Code

TIME: 10:30

LOCATION: _____

CITY: Madison

Name	Representation (Business, Assoc., Group, Self, etc.)	City and State	Appearing in Support	Appearing in Opposition	Appearing for Information
DAVID J. WISE	NFRC	Silver Spring, MD			
Rt Mc Gowan	WTMA	Madison WI			
Hermann Kovacs	KRAUS Homes	Suu Prairie			
Todd Meier	Kraus Homes	Suu Prairie			
Rick Dotted	APC Building Systems Inc.	Suu Prairie			
ROSS DELPORA	Misc. Env. Decade	Madison, WI			
Brent Ponz	Temperature Systems Inc.	Madison, WI			
Greer Daniels	Centennial Corp.	Suu Prairie			
Alphon Wallace	Self	Madison WI			
Dave Osborne	Conser Products Inc	Oregon WI	✓		✓

PUBLIC HEARING COMMENT AND AGENCY RESPONSE
DEPARTMENT OF COMMERCE

DIVISION OF SAFETY AND BUILDINGS

Rule Number: Chapters ILHR 20-25
 Relating To: Uniform Dwelling Code

Hearing Location: Eau Claire
 Hearing Date: 12/12/97

Sup.	In	Opp.	For Info.	Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
					Curt Hehl C. D. Hehl Construction Fall Creek, WI	New drain tile requirements are much too strict and will require a complete system where a partial system or no system would be adequate.	Agree. Provision will be amended.
					Dean Larson Chippewa Valley HBA Menomonie, WI	Safety glazing in bathrooms within 4 feet of the floor and 3 feet of the outside of the tub or shower enclosure per proposed s. 21.05 (5) (c) is too restrictive.	Agree. This provision will be deleted.
					Mike Marthaler Mike's Custom Homes Eau Claire, WI	Proposed bedroom definition in s. 20.07 (8f) is much too broad. It would cover many rooms that are never used as bedrooms. This could effect septic system sizing as well as egress and light and ventilation requirements.	Agree. This provision will be removed. The essential issue of exiting will be addressed in the next code change cycle.
					Thomas Derrich St. Croix HBA New Richmond, WI	<ol style="list-style-type: none"> 1. Requiring the taping of drywall in the garage is costly and is very difficult in cold weather. 2. Safety glazing in bathrooms within 4 feet of the floor and 3 feet of the outside of the tub or shower enclosure per proposed s. 21.05 (5) (c) is too restrictive. 3. Proposed bedroom definition in s. 20.07 (8f) is much too broad. It would cover many rooms that are never used as bedrooms. This could effect septic system sizing as well as egress and light and ventilation requirements. 	<ol style="list-style-type: none"> 1. Agree. This provision will be amended to include tightly fitted joints with limitations on gap size and added joint backing requirements. 2. Agree. This provision will be deleted. 3. Agree. This provision will be removed. The essential issue of exiting from basements will be addressed in the next code change cycle.
					John Lautz La Crosse HBA West Salem, WI	<ol style="list-style-type: none"> 1. Proposed bedroom definition in s. 20.07 (8f) is much too broad. It would cover many rooms that are never used as bedrooms. This could effect septic system sizing as well as egress and light and ventilation requirements. 2. The drain tile requirements work well as they are. In some cases gravity drainage can work without a pit. In other cases a partial system can work. A partial system should be allowed. 	<ol style="list-style-type: none"> 1. Agree. This provision will be removed. The essential issue of exiting from basements will be addressed in the next code change cycle. 2. Agree. Provision will be amended.

PUBLIC HEARING COMMENT AND AGENCY RESPONSE

Rule Number: Chapters ILHR 20-25
 Relating To: Uniform Dwelling Code

**DEPARTMENT OF COMMERCE
 DIVISION OF SAFETY AND BUILDINGS**

Hearing Location: Eau Claire
 Hearing Date: 12/12/97

Commenting		Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In Sup.	Opp.				
			Cecil Segelken Eau Claire Bldg. Insp. Eau Claire, WI	1. Supports removing the exception to egress window dimensions for casement windows in s. 21.03 (6m) (b) 3. 2. Agrees with the need for safety glazing in stairways under proposed ss. 21.05 (5) (d) and (e), but disagrees with the need for safety glazing within 3 feet of a tub or shower enclosure in s. 21.05 (c). 3. Opposes the need to put in a complete drain tile system where no system is required. A partial system should be allowed.	1. Agree. 2. Agree. The provision requiring safety glazing near the tub or shower enclosure will be removed. 3. Agree. This provision will be amended to allow partial systems.

PUBLIC HEARING COMMENT AND AGENCY RESPONSE DEPARTMENT OF COMMERCE

DIVISION OF SAFETY AND BUILDINGS

Rule Number: Chapters ILHR 20-25
 Relating To: Uniform Dwelling Code

Hearing Location: Waukesha
 Hearing Date: 12/15/97

Commenting		Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In	For				
Sup.	Opp.	Info.			
		1	Dan Lipinski Performance Design Building LLC Waukesha, WI	Makes several new suggestions, including: (1) having a split code, one more strict than the other, and allowing builders to build to either one as long as the consumer is aware of which one they are getting; (2) having true builders certification with continuing education requirements; (3) requiring infiltration testing to keep carbon monoxide out of the living area; (4) limiting the penetrations in removable sump covers; (5) requiring loose fill or batt insulation to be protected from wind washing; (6) requiring that fenestration products be installed exactly as they were tested; (7) stating the infiltration rate of a house and verifying it with a blower door test; (8) requiring mechanical ventilation to be operated continuously; (9) requiring that humidity be controlled in a dwelling; (10) prohibiting exterior walls from being used as plenums; (11) requiring ducts to be commissioned and tested prior to being put in service; (12) requiring "whole house design" to prevent condensation; (13) requiring all naturally aspirated appliances to have their own, separate combustion air supply; and (14) requiring kitchen stoves to have a draft hood that vents to the outside.	1. The Department only has resources to develop one code, the minimum standard. Others may issue voluntary standards. 2. No statutory authority currently exists. 3, 4, 8, 10, 11, 12, 13, 14. HVAC issues will be the subject of a future code change project. These issues will be considered by the Council under that project. More specific information will be needed from the commenter. 5, 6, 7. Suggestions go beyond what the Model Energy Code requires. Further information including costs and benefits will be needed for review.
			Ted Atkinson West Allis Bldg. Insp. West Allis, WI	1. Requests changing the fire separation distance in Table 21.08 for property lines to 3 feet rather than the proposed 5 feet because many older cities have very narrow lots. 2. Has questions on availability of 20 minute rated windows.	1. Agree. Provision will be amended. 2. Rated glass and separate frame assemblies are available from fire door/window suppliers. Need for fire windows reduced due to change in 1. above.
			Don Hinske Badger Wisconsin Heating Mequon, WI	1. Suggests requiring air-to-air heat exchangers 2. Wants to see HVAC contractors licensed like other professions and have continuing education requirements.	1. Currently MEC does not require. This HVAC issue will be the subject of a future code change project. 2. HVAC contractors license required now. Cont. education subject of future code change project.

**PUBLIC HEARING COMMENT AND AGENCY RESPONSE
DEPARTMENT OF COMMERCE**

DIVISION OF SAFETY AND BUILDINGS

Rule Number: Chapters ILHR 20-25
 Relating To: Uniform Dwelling Code

Hearing Location: Waukesha
 Hearing Date: 12/15/97

Commenting		Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In Sup.	Opp. For Info.				
			Al Eckhart Metropolitan Builders Ass. Pewaukee, WI	<ol style="list-style-type: none"> Mechanical fastening of roof trusses is unnecessary in our location. It will only add cost. Safety glazing in bathrooms within 4 feet of the floor and 3 feet of the outside of the tub or shower enclosure per proposed s. 21.05 (5) (c) is too restrictive. Requiring a label on the door between dwelling and garage in s. 21.08 would add cost and is unnecessary because the inspector can determine the door rating without the label. In s. 21.17, clarify if surface channels can "run to daylight" and also allow partial systems in municipalities without specific ordinances. In Table 21.25-A, the maximum height should not be the same for 2X4 and 2X6 walls. Changes to chapter 22 need to consider costs and benefits. We may be making dwelling occupants sick in the quest to save energy. 	<ol style="list-style-type: none"> Agree that there will some additional cost but there are some applications were toe nailing is not adequate and mechanical fastening is the only positive alternative. This change will bring us in line with the national CABO standard. Agree. This provision will be deleted. Agree that the label will add some minimal cost but the department knows of no other way to determine the rating of the door/frame assembly. Agree. The provision will be clarified so that these are allowed. This was modified to be consistent with most current standards of the Uniform Building Code. A note will be added to permit increases in the unsupported height where justified by analysis. The Council did use a cost/benefit analysis in the development of the proposal. Except to upgrade door and window requirements to national standards, no changes were made to decrease infiltration in the thermal envelope. The proposal still relies on occupant control of ventilation. Any specific case of adverse health effects shown to be caused by Ch. 22 requirements will be responded to.

PUBLIC HEARING COMMENT AND AGENCY RESPONSE

DEPARTMENT OF COMMERCE

DIVISION OF SAFETY AND BUILDINGS

Rule Number: Chapters ILHR 20-25
 Relating To: Uniform Dwelling Code

Hearing Location: Waukesha
 Hearing Date: 12/15/97

Commenting		Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In	Opp.				
			Charlie Madden Elkhorn, WI	<ol style="list-style-type: none"> 1. Changes in safety glazing requirements are unnecessary. 2. Sump and drainage systems should not be required where they are not needed because of natural conditions. 3. Make sure that energy worksheet calculations done on a computer match the same calculations done by hand. 4. Objects to adding "demarkations" to the code as in s. 22.03 (2). 	<ol style="list-style-type: none"> 1. Agree in part. S. 21.05 (5) (c) will be deleted. 2. Agree. Provision will be amended. 3. Agree. It should be noted that the proposal does allow the option of using simplified calculation methods to reduce the amount of hand calculations. 4. Identification marks are beneficial in reducing the amount of time necessary to determine if the correct amount of insulation has been installed. As an alternative, certification from the installer may be provided. This will be clarified in the draft.

PUBLIC HEARING COMMENT AND AGENCY RESPONSE

DEPARTMENT OF COMMERCE

DIVISION OF SAFETY AND BUILDINGS

Rule Number: Chapters II,HR 20-25

Relating To: Uniform Dwelling Code

Hearing Location: Green Bay

Hearing Date: 12/17/97

Commenting		Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In Sup.	Opp. For Info.				
			Mike Lotto Brown County HBA Greenleaf, WI	<p>1. Proposed bedroom definition in s. 20.07 (8f) is much too broad. It would cover many rooms that are never used as bedrooms. This could effect septic system sizing as well as egress and light and ventilation requirements.</p> <p>2. Safety glazing changes make sense in the wall around a tub but are otherwise unnecessary.</p> <p>3. Taping and sealing the gypsum board in attached garages is difficult to do in the winter and a taping job that isn't painted over will look uncompleted.</p> <p>4. Areas with sandy soils often put in a partial drain tile systems as long term insurance. They should not require a complete system.</p>	<p>1. Agree. This provision will be removed.</p> <p>2. Agree in part. S. 21.05 (5) (c) will be deleted.</p> <p>3. Agree. This provision will be amended to include tightly fitted joints with limitations on gap size and added joint backing requirements.</p> <p>4. Agree. This provision will be amended to clarify that partial systems are allowed.</p>
			Tom Collins Appleton Building Insp. Appleton, WI	<p>1. The broad bedroom definition in s. 20.07 may also present problems related to smoke detector location because a detector is required adjacent to each sleeping area.</p> <p>2. Proposed s. 22.32 dealing with recessed lighting fixtures may present inconsistencies with the electrical code. Also, some airtight cans are not gasketed per the MEC requirements and there may be no fixtures that are labeled as meeting ASTM E283.</p>	<p>1. Agree. This definition will be deleted.</p> <p>2. Conflicts with the Electrical code will be eliminated. Application issues will be addressed in the commentary or training. Reduction of air movement through these fixtures is important to reduce moisture migration into attic spaces.</p>
			Craig Arnold Appleton Building Insp. Appleton, WI	<p>Proposed Safety glazing requirements are very confusing.</p>	<p>The proposed requirements on safety glazing outside of tubs or showers will be deleted. Other sections will be reviewed for clarity.</p>

**PUBLIC HEARING COMMENT AND AGENCY RESPONSE
DEPARTMENT OF COMMERCE
DIVISION OF SAFETY AND BUILDINGS**

Rule Number: Chapters ILHR 20-25
 Relating To: Uniform Dwelling Code

Hearing Location: Stevens Point
 Hearing Date: 12/18/97

Commenting		Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In Supp.	For Opp. Info.				

NO ONE TESTIFIED AT THIS HEARING.

PUBLIC HEARING COMMENT AND AGENCY RESPONSE DEPARTMENT OF COMMERCE

DIVISION OF SAFETY AND BUILDINGS

Rule Number: Chapters ILHR 20-25
 Relating To: Uniform Dwelling Code

Hearing Location: Madison
 Hearing Date: 12/19/97

Commenting		Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In Sup.	Opp. For Info.				
			Kirk Dalton Epic Building Systems Sun Prairie, WI	Proposed insulation value reduction of 0.43 in s 22.23 for steel-framed dwellings is excessive. Has supporting data from utilities showing that R-30.5 steel-framed walls outperform R-19 wood walls. Suggests a reduction factor of approximately 0.20.	The factors generated by the commenter apply to an entire proprietary building system. The factors in the proposal apply only to opaque portions of assemblies so the two are not comparable. Subchapter VII allows for the department approval of factors developed for proprietary systems.
			Herman Kraus Kraus Homes Sun Prairie, WI	May want to address specific wall types and location of required thermal breaks in steel framed dwellings.	When specific information is received, it will be considered for inclusion in the code or commentary.
			Ross DePaola WI Environmental Decade Madison, WI	Supports the proposed changes to chapter 22. Good codes are a driver for new technologies. The proposed code requires very little change in construction practices. The rules do not make the home tighter. It is important to not confuse energy efficiency with tightness. The code will meet the intent of the Energy Policy Act.	The proposal does include the upgrade of door and window leakage limits to national standards. Sealing requirements for all other openings in the thermal envelope remain the same.
			Dave Osborne Conserv Products Oregon, WI	<ol style="list-style-type: none"> Generally supports code changes, particularly chapter 22. Suggests upgrading the requirements for the fresh air intake. If they are just holes in the wall with a flapper, they get frosted up and don't work. A higher efficiency furnace that doesn't draw any inside air may prevent them from opening at all. Opposes allowing a lower amount of insulation when a high efficiency furnace is installed. With new construction, there is no reason not to build a proper thermal envelope. 	<ol style="list-style-type: none"> Agree. Noted. This HVAC issue will be the subject of a future code change project. The code cannot specify a furnace efficiency requirement higher than the federal minimum. The trade off is allowed by the national model code and the current UDC. The % allowance will be taken out of Table 22.21 in case the national minimums change.
			Lynn Wallace Madison, WI	<ol style="list-style-type: none"> Generally in favor of code changes. 	<ol style="list-style-type: none"> Agree.

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DIVISION OF SAFETY AND BUILDINGS

Commenting		Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In Sup.	Opp. Opp.			
		Lynn Wallace (cont.)	<p>2. Since we adopt NFPA 54, the Fuel Gas Code, we should also adopt NFPA 58, relating to LP gas and NFPA 31 relating to fuel oil.</p> <p>3. Safety glazing in bathrooms should allow an exception for a nonslip floor surface.</p> <p>4. A railing could be allowed in lieu of safety glazing in a stairwell.</p> <p>5. May want to better define rated walls in s. 21.08.</p> <p>6. Table 21.08 should include overhangs and not measure wall to wall.</p> <p>7. Opposes decreasing fire separation wall from 5/8 inch to 1/2 inch for duplexes.</p> <p>8. 22.06 (6) should use 78 degrees as in the commercial code rather than 85 degrees.</p>	<p>2. LP gas and fuel oil use are regulated by other Commerce codes that do adopt the appropriate standards.</p> <p>3. Disagree. Flooring is often changed in bathrooms while windows stay the same. S. 21.05 (5) (c) though will be deleted.</p> <p>4. Disagree. Railings are often removed for remodeling.</p> <p>5. Agree. Will add note defining rated wall and acceptable testing laboratories or references.</p> <p>6. Agree this would be better, however, it would greatly complicate overall enforcement.</p> <p>7. Disagree. The revision brings the dwelling unit separation requirement for duplexes in line with garage and ILHR 21.08(5), Table 21.08, separation requirements (the department accepts 1 layer of 1/2 inch drywall on each side of studs as meeting 1/4 hour fire-resistive rating).</p> <p>8. Disagree. The temperature in the definition of a cooled space is used to designate conditioned and semi-conditioned spaces which are required to be inside the thermal envelope, not equipment sizing.</p>

PUBLIC HEARING COMMENT AND AGENCY RESPONSE DEPARTMENT OF COMMERCE

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Commenting		Exh. No.	Presenter, Group Represented, City, State	Comments/Recommendations	Agency Response
In Sup.	Opp. Info.				
			Lynn Wallace (cont.)	<p>9. In s. 22.10, it is unclear if the heating and cooling loads are to be calculated using minimums. Opposes maximum 15% overdesign allowance. With high efficiency furnaces, the energy savings are limited.</p> <p>10. In s. 22.15, if there is a manual switchover, you don't need a deadband.</p> <p>11. In s. 22.16, the equipment capability issue needs clarification.</p> <p>12. In ss. 22.17 and 22.19, it makes no sense to have the hottest part of the heating system insulated to only R-5.</p> <p>13. In s. 22.22 (5), why is a vapor retarder required around a duct in an unheated area? This should only be required for a cooled space, not a heated space.</p>	<p>9. Agree in part. Cooling system sizing will remain unlimited. The heating system size limit will remain, as it is flexible. More data is needed to consider the change.</p> <p>10. Agree.</p> <p>11. Agree. Clarification will be provided in the commentary and at training as necessary.</p> <p>12. The national standard for duct insulation was modified for simplicity. The MEC would have required R3.3 or R5 for cooling ducts and R8 and R6.5 for heating ducts depending on the location in the state.</p> <p>13. Agree. Draft will be changed.</p>

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	In Opp.	For Info.				
			2	Thomas Ponder CertainTeed Corp. Valley Forge, PA	Requests that we adopt two additional companion standards by reference in s. 20.24: NAIMA Fibrous Glass Duct Liner Standard and NAIMA Guide to Insulated Air Duct Systems as part of the proposed adoption of the NAIMA Fibrous Glass Duct Construction Standard.	The review of these standards will be the subject of a future code change project.
			3	Joseph Messersmith, Jr. Portland Cement Assoc. Rockville, VA	Requests that we adopt the latest version of American Concrete Institute standard ACI 318 in s. 20.24 and drop the reference to ACI 318.1 which is now incorporated in the ACI 318 standard.	Agree.
			4	Robert Blankenheim Independent Insp., Ltd. Waukesha, WI	Requests that where a sump pump is not installed, the sump pit be covered and sealed to prevent falls into the pit and to prevent radon and moisture from entering the basement through the sump pit.	The requirements for sump pits and covers can be found in the plumbing code.
			5	Brad Crary Independent Insp., Ltd. Waukesha, WI	Supports the bedroom definition proposal. It is needed to clearly define the parameters for exiting, light and ventilation in basement rooms.	The department believes the definition is too broad and would cause other problems. The main topic of exiting from a basement will be re-examined.
			6	Robert Schneider Arrowhead Builders Harland, WI	Requests a cost-benefit analysis of all provisions in the code change package.	The Council did use a cost benefit analysis to assist them in setting the standards. However, not all provisions were chosen based on cost, some were based on simplicity and ease of application. State law only requires that the costs and benefits be considered.
			7	Mary Ann Sibley Florence Co. Zoning Dept. Florence, WI	Opposes bedroom definition proposal. It would cause many new homes to have drain fields designed for 4-6 bedrooms when only 3 rooms will ever be used for sleeping.	Agree. The department will delete this proposal.

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		8	John Menger Milwaukee, WI	<ol style="list-style-type: none"> 1. Supports energy saving techniques in the code even if there is no obvious time-dependent payback because it is good for the environment, provides personal comfort and aids in resale. 2. Supports the proposal on bathroom safety glazing. 3. Suggests other possible future code changes, including (a) doubling the thickness of basement insulation, (b) standardizing window effectiveness values, (c) better drain tile systems, (d) stronger basement walls, (e) accessibility requirements for the disabled, (f) attic venting, (g) radon mitigation, and (h) the use of passive solar design. 	<ol style="list-style-type: none"> 1. A life cycle cost analysis was used to develop the thermal envelope changes. 2. The current proposal on safety glazing in bathrooms will be amended to require it only in the wall immediately surrounding a tub or shower. 3. Agree that these are good issues for future changes. Some are included in the current package: standardization of window properties via NFRC certification; and credit for passive solar design under subchapter VII.
		9	Howard Yanke Self	<p>Requests that the code require a tar coating on the exterior of basement walls as a means of waterproofing and to promote energy efficiency and to prevent radon seepage.</p>	<p>A masonry block foundation wall currently requires dampproofing. There are several different materials allowed to achieve this in s. 21.18 (3) (e). The code no longer references bituminous-based coatings due to concerns over their long term stability. Poured concrete walls do not require dampproofing.</p>
		10	Thomas Newton CertainTeed Corp. Valley Forge, PA	<p>Supports the proposed requirement in s. 22.03 for printing the R-value on batt or board insulation and for installing attic rulers and cards for the installation of blown insulation.</p>	<p>Agree.</p>
		11	Michael Kwart Insulation Contractors Ass. Alexandria, VA	<p>Supports the proposed requirement in s. 22.03 for printing the R-value on batt or board insulation and for installing attic rulers and cards for the installation of blown insulation.</p>	<p>Agree.</p>
		12	Wesley Halle Halle Builders New Richmond, WI	<p>Opposes the proposed language relating to drain tile systems that would prohibit the installation of a partial system drain tile system. Buyers would not willingly pay the cost of a complete system.</p>	<p>Agree. The language will be changed so that if a municipality does not require a complete system, a partial system is acceptable.</p>

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	In	For				
	Opp.	Info.	13	William Binn Wyntree Construction, Inc. Lake Geneva, WI	<ol style="list-style-type: none"> Opposes the bedroom definition proposal. Opposes the bathroom safety glazing proposal. 	<ol style="list-style-type: none"> Agree. The provision will be deleted. Agree in part. The department will delete the proposal for safety glazing that is outside the tub or shower enclosure in a bathroom.
			14	Cindy Knutson-Lycholat Knutson Bros., LLC East Troy, WI	<ol style="list-style-type: none"> Opposes the bedroom definition proposal. Opposes the bathroom safety glazing proposal. 	<ol style="list-style-type: none"> Agree. The provision will be deleted. Agree in part. The department will delete the proposal for safety glazing that is outside the tub or shower enclosure in a bathroom.
			15	Roger Lund Lund Builders, Inc. River Falls, WI	<ol style="list-style-type: none"> Opposes the bedroom definition proposal. Opposes the requirement of a complete drain tile system if the municipality does not require it or if there is no indication of high water levels. 	<ol style="list-style-type: none"> Agree. The provision will be deleted. Agree. The provision will be amended to clarify that partial systems are allowed.
			16	Joe Janesson Madison, WI	<ol style="list-style-type: none"> Supports the proposed changes to chapter 22 because they will be similar requirements in other states. Supports the proposed bedroom definition. Supports the proposed truss fastening requirements. Supports the proposed changes to s. 21.08 (5) regarding fire separation of dwellings. Lot line setbacks are getting smaller and these changes are needed to prevent the spread of fire. Supports the proposed floor joist bridging requirements in s. 21.22 (9). 	<ol style="list-style-type: none"> Agree. The department believes the definition is too broad and would cause other problems Agree. There will be some additional cost but there are some applications were toe nailing is not adequate and mechanical fastening is the only positive alternative. This change will bring us in line with the national CABO standard. Agree. Agree.

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			16 cont	Joe Jannson (cont)	6. Suggest that we adopt stronger requirements, similar to the commercial code for penetrations of fire separation walls.	6. The department will wait to see how the change to the commercial building code affects building practices and bring the topic back to the UDC Council for discussion.
			17	Al Schultz Town of Bellevue Zoning Green Bay, WI	<ol style="list-style-type: none"> 1. Suggests stronger and clearer requirements for attic access openings in garages so that the access cover is hinged or otherwise permanently attached. 2. Opposes wording in s. 21.17 on drain tile. A municipality must be allowed to require drain tile due to known natural conditions such as seasonal variations in rainfall and groundwater levels. 3. Suggests changes to the masonry wall requirements in s. 21.26. Rope should be required in weep holes to keep them from filling with wet mortar. Weep Holes should be required at least every 18 inches to allow for proper drainage. 	<ol style="list-style-type: none"> 1. The council discussed this and decided against adding more language to this code section. 2. Agree. The provision will be amended. 3. All of section 21.26 will be reviewed and amended as necessary in the next code change cycle.
			18	Paul Maz, Jr. Germantown, WI	<ol style="list-style-type: none"> 1. Opposes safety glazing requirements in bathrooms. 2. Opposes adding insulation to basements. 3. Opposes the proposed language on mechanical truss fasteners. 4. Opposes proposed bedroom definition. 	<ol style="list-style-type: none"> 1. Agree in part. The department will delete the proposal for safety glazing that is outside the tub or shower enclosure in a bathroom. 2. With furnace and other trade offs, basements may be insulated to current levels, if desired. 3. Disagree. There are some applications where nailing or toe nailing is not adequate and mechanical fastening is the only positive alternative. This change will bring us in line with the national CABO standard. 4. Agree. The provision will be deleted.

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		19	Douglas Marklein Marklein Builders, Inc. & South Central WBA Janesville, WI	<ol style="list-style-type: none"> 1. Opposes proposed bedroom definition. 2. Opposes the requirement for labeled doors and frames in fire separation walls. Labeled doors are available but the metal frames are difficult to obtain and homeowners would object to the appearance and thermal conductance of metal frames. 3. Opposes proposed requirements for taping or sealing drywall edges in garages due to cold weather application problems. 4. Opposes requiring a complete drain tile system where a partial system is adequate. 	<ol style="list-style-type: none"> 1. Agree. The provision will be deleted. 2. The department will investigate this topic and amend as necessary. 3. Agree. This provision will be amended to include tightly fitted joints with limitations on gap size and added joint backing requirements. 4. Agree. The provision will be amended to clarify that partial systems are allowed.
		20	Garry Decker Garry H. Decker & Co. Oshkosh, WI	<ol style="list-style-type: none"> 1. Opposes proposed bedroom definition. 2. Opposes the safety glazing changes. 3. Opposes the proposal for sealing drywall edges in garages due to cold weather application problems. 4. Opposes the proposed prohibition on partial drain tile systems. 	<ol style="list-style-type: none"> 1. Agree. The department will delete this. 2. Agree in part. The department will delete the proposal for safety glazing that is outside the tub or shower enclosure in a bathroom. 3. The provision will be clarified so that caulking and tightly fitted joints with backing is acceptable. This should eliminate problems with cold weather application. 4. Agree. The provision will be amended to clarify that partial systems are allowed.

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			21	William Carriy Wisconsin Builders Assoc. Madison, WI	<ol style="list-style-type: none"> 1. Objects to the rule changes due to lack of economic analysis. 2. Opposes the proposed bedroom definition. 3. Opposes the proposed safety glazing requirements in bathrooms outside of the tub or shower enclosure. 4. Opposes the proposal that drywall edges be taped and sealed in the separation wall between garage and dwelling. 5. Opposes the proposed prohibition on partial drain tile systems. 	<ol style="list-style-type: none"> 1. See the hearing draft plain language analysis of Ch. 22 Subch. VI for a description of the economic analysis used by the Council to assist in choosing insulation levels. The department will consider a more standard method for the rest of the code. 2. Agree. This provision will be deleted. 3. Agree. The department will delete the proposal for safety glazing that is outside the tub or shower enclosure in a bathroom. 4. Agree. This provision will be amended to include tightly fitted joints with limitations on gap size and added joint backing requirements. 5. Agree. Provision will be amended to clarify that a partial system is allowed.
			22	Monte Ewing Oregon, WI	<ol style="list-style-type: none"> 1. Supports the proposed uniform dimensions for all types of egress windows. 2. Suggests moving s. 21.05 (3) and (4) to s. 22.08. Reference to vapor retarders should be moved to ch. 22, also. 3. Section 21.08 (5) should be clarified so the separation is maintained between garages and porch overhangs. 4. Section 21.08 (5) (c) should require hardware to keep the rated door closed. 	<ol style="list-style-type: none"> 1. Agree. 2. Vapor retarder language has been clarified in ch. 22.08. Due to the familiarity with the vapor retarder requirements at its current location, it has been decided at this time that it will remain in s. 21.05(3) and (4). 3. Agree. 4. Disagree. There is no known problem with people not closing the door between the garage and dwelling.

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		22	Monte Ewing (cont.)	<p>5. Section 21.08 (7) (a) & (b) should define what the "required separation" refers to.</p> <p>6. Section 21.08 (7) (b) should define "firmly packed" and noncombustible.</p> <p>7. Section 21.17 should regulate the use of perforated and non-perforated plastic drain tile. There should also be a clarification on how drain tile is affected by alterations to dwellings.</p> <p>8. Section 21.17 (4) Note should clarify that only a licensed plumber may install the sump and discharge piping.</p> <p>9. In s. 22.03 (1), add the term "calculated" before settled thickness and add "readily accessible" to the term conspicuous.</p> <p>10. Section 22.04 on equipment maintenance information should be in chapter 23, not 22.</p> <p>11. There are several definitions in this section that should be moved to s. 20.07 because they apply or should apply to other areas of the code. These include: (1) accessible, (27) readily accessible [This should be changed to "accessible, readily" as in the NEC.], (4) Basement wall, (7) Crawl space wall, (14) Glazing area, (30) Roof assembly, and (31) Sash Crack.</p>	<p>5. Agree. Reference to applicable sections of 21.08(5) will be added.</p> <p>6. Agree. The department will wait to see how the change to the commercial building code affects building practices and bring the topic back to the UDC Council for discussion.</p> <p>7. Agree in part. Materials used for subsurface drainage are already regulated by the plumbing code. Therefore, additional regulatory requirements are not needed in s. 21.17. Language has been added to s. 21.17 to clarify drain tile installation requirements for altered buildings.</p> <p>8. Disagree. The credential code, Comm 5, already sets forth licensing requirements for installers of plumbing systems.</p> <p>9. Agree.</p> <p>10. Agree.</p> <p>11. These definitions come from the Model Energy Code and should not be applied to other chapters unless the potential impacts are evaluated.</p>

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		22	Monte Ewing (cont.)	<p>12. In s. 22.06, the definition of "Type IC rated" should follow the UL definition. In s. 22.32, the requirements for recessed lighting should follow UL requirements.</p> <p>13. In s. 22.08 (1) (b), clarify that the one inch space is between the insulation and the roof sheathing.</p> <p>14. In s. 22.08 (3), it is not a good idea to list attic, crawl spaces, and basements as areas that dryer exhaust cannot terminate into. What about soffits, for example?</p> <p>15. In ss. 22.17 (4) (a) and 22.19 (1) (d), add the word "exterior" ahead of walls at the end of the sentences.</p> <p>16. In ss. 22.22 (2) and (3), wording should be added to clarify that the vapor retarder has a rating of 1.0 perm or less.</p> <p>17. In s. 23.02 (3) (a) 4., If clothes dryers are exempted, the code should clearly state this. 18. In s. 23.02 (3) (a) 5., "Kitchen range hoods" should be changed to "kitchen exhaust systems".</p> <p>18. If clothes dryers are exempt from complying with s. 23.02 (3) (a) 4., it should be clearly stated.</p> <p>19. There is no provision recognizing air-to-air heat exchangers for achieving balanced ventilation.</p>	<p>12. Agree.</p> <p>13. Agree.</p> <p>14. The first sentence requires dryers to be vented to the outside of the dwelling so venting to a soffit would not be allowed. The second sentence lists spaces where confusion is common. These spaces may be outside the thermal envelope. Agree that a requirement to vent outside the building or structure would be more clear.</p> <p>15. Disagree. The thermal envelope may not be at the exterior wall.</p> <p>16. Agree that clarification is needed.</p> <p>17. Agree.</p> <p>18. Agree.</p> <p>19. No particular system is identified nor precluded under the performance requirement.</p>

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		23	Craig Nickelbein CertainTeed Corp. Mukwonago, WI	Supports the proposed requirements for identifying insulation type, thickness, and R-values in s. 22.03.	Agree.
		24	Ken Baumgart Brown County HBA Green Bay, WI	<ol style="list-style-type: none"> 1. Opposes the proposed bedroom definition. 2. The proposed requirement for mechanical fastening other than toe-nailing is unnecessary in many areas of the state and adds cost. 3. Opposes the proposed safety glazing requirements in s. 21.05 (5) (c) for application within 3 feet of the outside of a tub or shower. 4. Opposes the proposed requirement to tape and seal drywall joints in garages. 5. Opposes the prohibition on partial drain tile systems. 	<ol style="list-style-type: none"> 1. Agree. This provision will be deleted. 2. Agree that there will some additional cost but there are some applications where toe nailing is not adequate and mechanical fastening is the only positive alternative. This change will bring us in line with the national CABO standard. 3. Agree. This provision will be deleted. 4. Agree. This provision will be amended to include tightly fitted joints with limitations on gap size and added joint backing requirements. 5. Agree. The provision will be amended to clarify that partial systems are allowed.

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		25-29	Boien Realty, Inc Antigo, WI La Crosse Area Bldrs. Ass. Onalaska, WI Terrace Homes Retail LLC Friendship, WI Woodcraft Quality Homes Necedah, WI Adlee Construction Wisconsin Rapids, WI	1. Opposes the proposed bedroom definition. 2. Opposes the proposed safety glazing requirements in s. 21.05 (5) (c) for application within 3 feet of the outside of a tub or shower. 3. Opposes the proposed requirement to tape and seal drywall joints in garages. 4. Opposes the prohibition on partial drain tile systems.	1. Agree. This provision will be deleted. 2. Agree. This provision will be deleted. 3. Agree. This provision will be amended to include tightly fitted joints with limitations on gap size and added joint backing requirements. 4. Agree. The language will be clarified to address this.
		30-52	Ken LaCoy Constr., Inc. Hayward, WI Hayward Glass & Door Inc Hayward, WI Steve Hunter Construction Barnes, WI Charles Johansen Hayward, WI Mast Const. Co., Inc. Hayward, WI Sterling Building Systems Wausau, WI	1. Opposes proposed bedroom definition. 2. Opposes the proposed prohibition on partial drain tile systems.	1. Agree. This provision will be deleted. 2. Agree. The provision will be amended to clarify that partial systems are allowed.

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In Supp.	Opp.				
		30-52 cont.	Jon Jaderborg Spooner, WI		
			Jorgensen Const. Hayward, WI		
			Grand Pines Const. Hayward, WI		
			Pat Foat Construction Barnes, WI		
			J & S Painting Hayward, WI		
			Jeff Ince Masonry Hayward, WI		
			Nordic WW Ojibwa, WI		
			Roger Hoff Construction Hayward, WI		
			Sjostrom Construction, Inc. Hayward, Inc.		
			Nelson Lumber Hayward, WI		
			Northland Rec. Homes Hayward, WI		

<p>30-52 cont.</p>	<p>Arrow Building Center Hayward, WI Roscoe Butterfield, Inc. Hayward, WI Peoples National Bank Hayward, WI Como Gas Sales Cable, WI Nels Beckman Hayward, WI Don Harvey Concrete Lake Nebagamon, WI</p>		
<p>53-75</p>	<p>Chudnow Const Corp. Milwaukee, WI Fireside Construction, LTD Brookfield, WI Callen Construction, Inc. Muskego, WI Bielinski Bros. Builders Waukesha, WI Henderson Group, Inc. Mequon, WI Metropolitan Builders Ass. Milwaukee, WI Burkholz Builders, Inc. Pewaukee, WI Darga Builders, LLC Hales Corners, WI</p>	<p>1. Opposes the proposed bedroom definition. 2. The proposed requirement for mechanical fastening other than toe-nailing is unnecessary in many areas of the state and adds cost. 3. Opposes the proposed safety glazing requirements in s. 21.05 (5) (c) for application within 3 feet of the outside of a tub or shower. 4. Opposes the proposed requirement of a labeled door between the garage and dwelling. It will add \$30 to the cost and an unlabeled door can be easily tested to show compliance. 5. Opposes the proposed requirement to tape and seal drywall joints in garages because of difficulty with cold weather application. 6. Opposes the prohibition on partial drain tile systems. 7. The entire chapter 22 needs cost-benefit analysis.</p>	<p>1. Agree. This provision will be deleted. 2. Agree that there will be some additional cost but there are some applications where toe nailing is not adequate and mechanical fastening is the only positive alternative. This change will bring us in line with the national CABO standard. 3. Agree. This provision will be deleted. 4. The department knows of no valid way to fire test a door/frame assembly in place. The label is essential to show compliance. 5. Agree. This provision will be amended to include tightly fitted joints with limitations on gap size and added joint backing requirements. 6. Agree. The provision will be amended to clarify that partial systems are allowed. 7. This has been completed. It was developed with UDC Council and builder representative input and used by the Council to develop the proposal.</p>

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		53-75 cont	Handcrafted Homes, LLC New Berlin, WI Kaerek Builders, Inc. Milwaukee, WI Trustway Homes Pewaukee, WI Lawrence W. Babb, Inc. Okanuchee, WI Freeman Group, Inc. Cedarburg, WI Helmut's Home Services Milwaukee, WI J. G. Samuels, Inc. North Prairie, WI Kertle Creek Homes Waukesha, WI Northern Crossarm Co Inc. Chippewa Falls, WI Woodhaven Homes, Inc. Pewaukee, WI Chapel Hill Homes, Inc. Elm Grove, WI	8. Opposes any insulation below ground level, because soil is a greater insulator than insulation. Opposes particularly the proposed 10-foot provision in s. 22.28.	8. The analysis used to help pick insulation levels did consider the effect of soil. Note that above grade and below grade requirements differ. Agree that the 10-foot requirement should be removed. With trade offs, owners can insulate to any depth they want.

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		53-75 cont	Kings Way Homes, Inc. Elm Grove, WI Weske Building Corp. Menomonee Falls, WI Gas Light Homes, Inc. New Berlin, WI The Foster Group, LTD. Wauwatosa, WI		

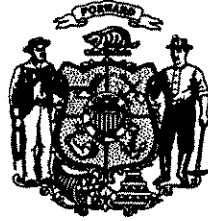
WISCONSIN LEGISLATIVE COUNCIL STAFF

LCRC
FORM 2

RULES CLEARINGHOUSE

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CLEARINGHOUSE REPORT TO AGENCY

[THIS REPORT HAS BEEN PREPARED PURSUANT TO S. 227.15, STATS. THIS IS A REPORT ON A RULE AS ORIGINALLY PROPOSED BY THE AGENCY; THE REPORT MAY NOT REFLECT THE FINAL CONTENT OF THE RULE IN FINAL DRAFT FORM AS IT WILL BE SUBMITTED TO THE LEGISLATURE. THIS REPORT CONSTITUTES A REVIEW OF, BUT NOT APPROVAL OR DISAPPROVAL OF, THE SUBSTANTIVE CONTENT AND TECHNICAL ACCURACY OF THE RULE.]

CLEARINGHOUSE RULE 97-138

AN ORDER to repeal ILHR 20.07 (22), (27m), (39), (73r) and (74), 21.03 (6m) (b) 3., 21.08 (6) (e), 21.17 (3) and (4), 21.29 (12) and 23.15 (2) (d); to renumber ILHR 21.17 (2) to (5), 21.29 (13) and (14) and 23.15 (2) (e) and (f); to amend ILHR 21.02 (1) (c) and (3) (d), 21.03 (6m) (b) 1. and 2., 21.042 (5) (b) and (c), 21.045 (3) (b), 21.05 (3), 21.08 (6) (c), (d) and (e) 1. b., 21.17 (3) (d), 21.18 (2), 21.205, 21.25 Table 21.25-A and 21.27 (3) (a) 2. c.; to repeal and recreate chapter ILHR 22 and ILHR 20.24, 21.05 (4) and (5), 21.08 (5) and (6) (b), 21.17 (1) and (3) (c), 21.20, 21.22 (9), 21.27 (3) (a) 1., 23.02 (1) and (3) (a) and 23.08 (2) (b) 15. and (5); and to create ILHR 20.07 (8f), 20.09 (5) (b) 1. c. and d., 21.08 (7), 21.17 (2) and (4) and 23.14 (2) (a) Note, relating to the uniform dwelling code.

Submitted by **DEPARTMENT OF COMMERCE**

11-11-97 RECEIVED BY LEGISLATIVE COUNCIL.

12-10-97 REPORT SENT TO AGENCY.

RNS:MCP:kjf;lah

LEGISLATIVE COUNCIL RULES CLEARINGHOUSE REPORT

This rule has been reviewed by the Rules Clearinghouse. Based on that review, comments are reported as noted below:

1. STATUTORY AUTHORITY [s. 227.15 (2) (a)]

Comment Attached YES NO

2. FORM, STYLE AND PLACEMENT IN ADMINISTRATIVE CODE [s. 227.15 (2) (c)]

Comment Attached YES NO

3. CONFLICT WITH OR DUPLICATION OF EXISTING RULES [s. 227.15 (2) (d)]

Comment Attached YES NO

4. ADEQUACY OF REFERENCES TO RELATED STATUTES, RULES AND FORMS
[s. 227.15 (2) (e)]

Comment Attached YES NO

5. CLARITY, GRAMMAR, PUNCTUATION AND USE OF PLAIN LANGUAGE [s. 227.15 (2) (f)]

Comment Attached YES NO

6. POTENTIAL CONFLICTS WITH, AND COMPARABILITY TO, RELATED FEDERAL
REGULATIONS [s. 227.15 (2) (g)]

Comment Attached YES NO

7. COMPLIANCE WITH PERMIT ACTION DEADLINE REQUIREMENTS [s. 227.15 (2) (h)]

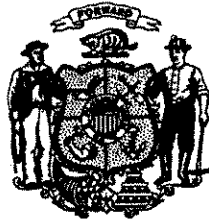
Comment Attached YES NO

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CLEARINGHOUSE RULE 97-138

Comments

[NOTE: All citations to "Manual" in the comments below are to the Administrative Rules Procedures Manual, prepared by the Revisor of Statutes Bureau and the Legislative Council Staff, dated October 1994.]

2. Form, Style and Placement in Administrative Code

- a. The repeal and recreation of s. ILHR 20.24 in SECTION 8 should not include the subchapter title.
- b. SECTION 9 should be divided into two SECTIONS--one that rennumbers and amends s. ILHR 21.02 (1) (c) and one that creates s. ILHR 21.02 (1) (c) 2. and 3.
- c. The title in s. ILHR 21.05 (4) (b) should be underlined.
- d. The reference in s. ILHR 21.08 (5) (b) to "subpars." should be changed to "par."
- e. The title to s. ILHR 21.17 should not be shown when s. ILHR 21.17 (1) is repealed and recreated.
- f. The hyphen in s. ILHR 21.17 (4) (c) should be replaced by "to."
- g. The title of ch. ILHR 22 should be shown when the entire chapter is repealed and recreated.
- h. In ch. ILHR 22, it is suggested that the order of subchs. II and III be reversed.
- i. The last sentence of s. ILHR 22.04 should be written in the active voice. It should begin "_____ shall provide . . ." The entire rule should be reviewed for instances of this error; see, for example, ss. ILHR 22.16 (intro.) and 23.02 (1) (c).

- j. The cross-reference in s. ILHR 22.30 (2) should be to "sub. (3)."

5. Clarity, Grammar, Punctuation and Use of Plain Language

a. The term "bedroom" is defined in s. ILHR 20.07 (8f) to mean a room with a closable door that also contains a closet. This definition could encompass other kinds of rooms not normally thought of as bedrooms, such as a bathroom that has a closet. It also would exclude a room that is used as a bedroom but that does not contain a closet.

b. The phrase "irrespective of height or width" that is added to s. ILHR 21.03 (6m) (b) 1. is unclear. As drafted, this phrase means "without regard to" the height or width. The apparent intent of this provision would be better expressed by the phrase "in either height or width." In the alternative, the underscored language could be deleted.

c. Sections ILHR 22.01 and 22.02 (1) and (2) should commence with "This chapter applies . . .", "This chapter is not intended . . ." and "This chapter allows . . .", respectively.

d. Section ILHR 22.03 (1) specifies two alternatives for identifying insulation. It is difficult to understand the differences between the two alternatives and difficult to understand how the requirement of posting the certification relates to these alternatives. This subsection could be clarified easily by separating the alternatives into two paragraphs.

e. Section ILHR 22.03 (2) (a) requires installation of insulation in a manner to permit inspection. Should this be clarified to state that the inspection would occur before walls and ceilings are finished?

f. Section ILHR 22.04 refers interchangeably to equipment and product. Can consistent terminology be used in this section?

g. The first sentence in s. ILHR 22.05 (1) is difficult to understand. One way to clarify this sentence would be to separate it into two sentences, one for labeling and certification by the manufacturer and one for independent laboratory certification. Also, the acronym "NFRC" should be included in this subsection. Finally, sub. (1) appears to *require* manufacturer certification, but sub. (2) establishes requirements when the manufacturer has not determined product U-value. Are these subsections inconsistent?

h. The comma after "such as" should be deleted in s. ILHR 22.06 (3).

i. The definition of "energy" in s. ILHR 22.06 (11) could be clarified by adding "form" after "one" and by placing the acronyms in parentheses.

j. The definition of "glazing area" in s. ILHR 22.06 (14) refers to glazing that encloses conditioned spaces. Would it be preferable to refer to glazed surfaces that are part of the dwelling envelope, which is a defined term in the rule?

k. The definition of "gross exterior wall area" in s. ILHR 22.06 (15) could be substantially clarified. The meaning of "normal projection" is not clear and may be technical

jargon. The phrase "bounding interior space which is conditioned by an energy-using system" is unnecessary because this concept is included in the defined term "dwelling envelope." It is not clear which surfaces and spaces are referred to by the phrases "such surfaces" and "such spaces." Opaque areas are deemed to include windows and doors in this definition, but are excluded from the definition of "opaque areas" in s. ILHR 22.06 (26).

l. In s. ILHR 22.06 (28), "contributed" should replace "contribute."

m. The definition of "sash crack" in s. ILHR 22.06 (31) requires a measurement of the perimeter of all window sashes. It is not clear what is meant by "overall dimensions" and how a perimeter could consist of anything other than the overall dimension. Also, does the phrase "expressed in feet" mean "rounded off to the nearest foot" or does it mean something else?

n. The term "daylighting" in s. ILHR 22.06 (37) is jargon. It would appear to be more appropriate to use "sunlight."

o. The definitions of "thermal conductance" and "thermal transmittance" in s. ILHR 22.06 (39) and (42) are nearly the same. There does not appear to be any reason to use two terms to mean the same thing. If these terms are in fact different, the definitions should indicate that difference.

p. It is not clear what portion of the roof would be the "low sides" in s. ILHR 22.08 (1) (a) (intro.) Is the "side" of the roof the gable? Also, what is meant by the "upper one-half of the roof or attic area"?

q. The phrase "of vapor retarders" should apparently be added after "designs" in s. ILHR 22.22 (1) (a).

r. The phrase "the given" in s. ILHR 22.28 (2) should be replaced by "a" and the hyphen in the phrase "10-feet" should be eliminated. This latter problem should be corrected in ss. ILHR 22.26 (2) and 22.27 (2) also.

s. The word "plus," which is used several times in ss. ILHR 22.33 and 22.34, should be replaced by "and."

t. It is not clear what is meant by "analysis of the annual energy usage or annual energy analysis" in s. ILHR 22.33. These two terms appear to be virtually the same.

u. Section ILHR 22.35 (1) should commence with: "The input values in this section shall be used"

v. In table 22.35-2, an asterisk should be placed after "Duct Location."

w. Section ILHR 22.36 (1) allows the comparison of designs on an annual basis or "other time unit." However, s. ILHR 22.33 appears to allow only annual calculations.

x. Section ILHR 22.41 (2) (intro.) should commence as follows: "To qualify for the exclusion in sub. (1), the renewable energy"

- y. The word "shall" should be deleted in s. ILHR 22.41 (2) (a).
- z. In s. ILHR 22.42 (1), "an" should be inserted before "exception."
- aa. The comma in the second sentence of s. ILHR 22.42 (2) should be deleted and "must" should be replaced by "shall."

RESPONSE TO LEGISLATIVE COUNCIL CLEARINGHOUSE REPORT

Department of Commerce

CLEARINGHOUSE RULE NO.: 97-138

RULE NO.: Chapters ILHR 20-25

RELATING TO: Uniform Dwelling Code

Agency contact person for substantive questions.

Name: LeRoy Stublaski

Title: Engineering Consultant – Uniform Dwelling

Telephone No. 267-5113

Legislative Council report recommendations accepted in whole.

Yes

No

1. Review of statutory authority (s.227.15(2)(a))

- a. Accepted
- b. Accepted in part
- c. Rejected
- d. Comments attached

2. Review of rules for form, style and placement in administrative code (s.227.15(2)(c))

- a. Accepted
- b. Accepted in part
- c. Rejected
- d. Comments attached

(Continued on reverse side)

3. Review rules for conflict with or duplication of existing rules (s.227.15(2)(d))

- a. Accepted
- b. Accepted in part
- c. Rejected
- d. Comments attached

4. Review rules for adequate references to related statutes, rules and forms (s.227.15(2)(e))

- a. Accepted
- b. Accepted in part
- c. Rejected
- d. Comments attached

5. Review language of rules for clarity, grammar, punctuation and plainness (s.227.15(2)(f))

- a. Accepted
- b. Accepted in part
- c. Rejected
- d. Comments attached

6. Review rules for potential conflicts with, and comparability to, related federal regulations (s.227.15(2)(g))

- a. Accepted
- b. Accepted in part
- c. Rejected
- d. Comments attached

7. Review rules for permit action deadline (s.227.15(2)(h))

- a. Accepted
- b. Accepted in part
- c. Rejected
- d. Comments attached

RESPONSE TO LEGISLATIVE COUNCIL CLEARINGHOUSE REPORT

2. Comments on Form, Style and Placement in Administrative Rule

- h. Consistency with model code sequence is desired.
- i. Active voice is not possible and not required. It would be inconsistent with all of our codes.

All other comments were accepted.

5. Comments on Clarity, Grammar, Punctuation and Plain Use of Language

- e. Section ILHR 20.10 already specifies when the insulation inspection takes place.
- j. Conditioned space is also a defined term.
- k. Clarification will be made where possible. The dwelling envelope may or may not coincide with the exterior walls.
- l. An alternate correction was made by inserting the word "would" before "not contribute".
- n. The term is used in other industry and national standards with which consistency is important.
- o. One is a material property and one is an assembly property. Consistency with other industry and national standards is important.
- p. Language is from the current code. Users do not report any problems.
- q. Any design covered by the code is referred to.
- w. Section ILHR 22.36 (1) refers to the expression of the comparison. The annual energy use may be expressed as the use in a 52-week period or a 365-day period.

All other comments were accepted.