

INDUSTRY LABOR AND HUMAN RELATIONS

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spaces located on one or more floors (or parts thereof) in a building. A unit may include 2 or more noncontiguous areas.

History: Cr. Register, February, 1983, No. 326, eff. 3-1-83; am. (1), (2) (intro.) and (h), cr. (3) and (4), Register, December, 1984, No. 343, eff. 1-1-85; am. (2), r. and recr. (4), Register, November, 1985, No. 359, eff. 12-1-85.

Subchapter II Definitions

ILHR 67.04 Definitions. In this chapter:

(1) "Accessible" means capable of being reached without removal or alteration of any part or parts of the permanent structure finish materials or paved sidewalk or driveway. Cavities under floors in unfinished attic areas are accessible. Exposed foundation areas located above paved sidewalks or driveways are accessible.

(2) "Annual fuel utilization efficiency (AFUE)" means the efficiency rating of the heating plant model. Unlike steady-state conditions, this rating is based on average usage conditions, including on and off cycling as set out in the U.S. Department of Energy test procedures.

Note: The higher the AFUE rating, the higher the heating plant efficiency will be.

(3) "Ambient activated reset control" means a control device which modulates the water temperature in the heat distribution system to meet heat loads which are determined as the device senses the outside ambient temperature. It is also known as a modulating aquastat.

(4) "Authorize" means to affix a DILHR authorization stamp to a form for a Certificate of Compliance, Stipulation or Waiver, sign the form in the space marked "Inspector Signature" or "Signature of Agency Office" and write the relevant dates, identification of the signing official and authorization stamp number in the appropriate spaces.

(4m) "Basement" means a space of full story height below the first or ground floor with its entire floor line below exit discharge grade.

(5) "Box sill" means that portion of the building envelope between the top of the foundation wall and the sub-floor immediately above, or the perimeter of the floor joists.

(6) "British thermal unit (Btu)" means the quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit at or near 39.2° F.

(7) "Condensing secondary heat exchanger" means a heat exchanger specifically designed to recuperate latent and sensible heat from flue gases.

(8) "Condominium" means a multiple dwelling unit building in which there is separate ownership of individual dwelling units, as created by ch. 703, Stats.

(8m) "Crawl space" means an unfinished space of less than full story height below the first or ground floor. Crawl spaces may be vented or unvented to the outside.

(9) "Cutout" means a control device that cuts off the circulating pumps and prevents the boiler from firing when the outdoor temperature meets or exceeds a predetermined value.

(10) "Department" means the department of industry, labor and human relations.

(11) "Dwelling unit" means a building or that part of a building which is used as a home or residence.

(12) "Energy conservation measure" means any measure which increases the energy efficiency of a rental unit, including, but not limited to, the installation of caulking, weatherstripping, insulation and storm windows.

(12m) "Exit discharge grade" means the elevation of finished exterior surface of paved or unpaved ground at any exit discharge doorsill.

(13) "Fahrenheit" means a thermometric scale in which 32° denotes freezing and 212° denotes boiling of water under normal pressure at sea level.

(14) "Financial institution" means any state or nationally chartered bank, savings and loan association, credit union, mutual savings bank, trust company bank or other lending authority created or licensed under state or federal law.

(15) "Finish material" means drywall, plaster, siding or other material covering the structure, but does not include floors in unfinished spaces.

(16) "Flame retention head burner" means an oil burner that increases combustion efficiency, increases heat transfer efficiency and decreases air flow through the boiler when the boiler is not firing. The burner uses an end cone at the nozzle to generate an intensely mixed, stable flame, with some recycling of hot gases.

(17) "Gross area" means the occupied or usable floor area in a building but not including space occupied by columns, walls, partitions, mechanical shafts or ducts.

(17m) "Ground floor" means a space of full story height which is a level of a building on a sloping or multilevel site and which has the floor line partly, but not entirely, below exit discharge grade.

(18) "Habitable room" means any room used for sleeping, living or dining purposes, excluding such enclosed places as kitchens, closets, pantries, bath or toilet rooms, hallways, laundries, storage spaces, utility rooms, and similar spaces.

(19) "Health care facilities" means either hospitals or nursing homes.

(20) "Inspector" means a person certified by the department to perform inspections for energy efficiency in rental units.

(21) "Intermittent ignition device" means an ignition device which is actuated only when the gas appliance is in operation.

(22) "Issue" means to authorize a certificate of compliance, stipulation or waiver and give the authorized copy of the form to the owner, owner's representative or other appropriate person who may use it for recordation of the property transfer.

(23) "Municipality" means a city, village or town.

(24) "Owner" means any person having a legal interest of 50% or more in a rental unit or a purchaser of a rental unit under a land contract, but does not mean a tenant with or without an option to purchase.

(25) "Owner-occupied" means one dwelling unit in a rental unit building used as the primary residence by the owner for at least one year immediately after the date of transfer.

Note: If a dwelling unit is subject to an existing lease held by a person other than the owner, the dwelling unit cannot be owner-occupied at the time of transfer. The dwelling unit may be owner-occupied on termination of the lease if the requirements of s. ILHR 67.08 (3) (c) are met.

(26) "Power burner" means a gas burner that has a high combustion efficiency due to the incorporation of an electric blower which increases the velocity and turbulence of the air/gas mixture moving through the system.

(27) "Rental unit" means a dwelling unit which is rented for a monetary exchange or is part of an agreement between employer and employee where a dwelling unit is provided as part of the remuneration for employment. The definition of a dwelling unit as a rental unit will be based on its use after transfer.

Note: Single family dwellings which are used as rental units after transfer are subject to the provisions of this chapter.

(28) "Sidewalls" means the exterior building envelope walls excluding the box sill and including windows, doors, and other openings above the box sill.

(29) "Thermal performance" means the gross heat loss from the exterior building envelope.

(30) "Thermal resistance (R)" means a measure of the ability of materials to retard the flow of heat. The R-value is the reciprocal of a heat transfer coefficient or thermal transmittance, expressed by U;  $R = 1/U$ .

Note: The higher the R-value of a material, the more difficult it is for heat to flow through the material.

(31) "Thermal transmittance (U)" means the coefficient of heat transmission expressed in units of Btu per hour per square foot per degree F. It is the time rate of heat flow. The U-value applies to combinations of different materials used in series along the heat flow path and also to single materials that comprise a building section, and includes cavity air spaces and surface air films on both sides.

Note: The lower the U-value of a material, the more difficult it is for heat to flow through the material.

(32) "Transfer" means a conveyance of ownership interest, including a controlling stock or partnership interest, in a rental unit by deed, land contract or judgement; or conveyance of an interest in a lease in excess of one year which was contracted after January 1, 1985. Transfer does not mean a conveyance under chs. 851 to 879, Stats., (probate) or mean:

(a) Transfers for nominal or no consideration which confirm, correct or reform a transfer previously made;

(b) Transfers for delinquent taxes or assessments to federal, state or local governments provided that, before subsequent transfer, the transferee presents the stipulation described in this chapter, and that compli-

ance shall be no later than one year after the date of the subsequent transfer;

(c) Transfers resulting from court-ordered partitions of property;

(d) Transfers resulting from involuntary merger or liquidation of financial institutions;

(e) Transfers from a subsidiary corporation to its parent for no consideration, or in sole consideration of cancellation, surrender or transfer of capital stock between parent and subsidiary corporation;

(f) Transfers between husband and wife or parent and children for nominal or no consideration;

(g) Transfers between agent and principal or trustee and beneficiary without actual consideration;

(h) Transfers made solely to provide security for a debt or obligation or transfers made to or from financial institutions solely for release of security for debt or obligation;

(i) Transfers pursuant to or in lieu of condemnation;

(j) Transfers pursuant to property division under ch. 767, Stats., (divorce);

(k) Transfers of property pursuant to foreclosure or in lieu of foreclosure provided that, before subsequent transfer, the transferee present a stipulation as described in s. ILHR 67.08 (3), and that compliance shall be no later than one year after date of the subsequent transfer. These transfers include but are not limited to property which reverts back to financial institutions, land contracts which revert back to the seller and property transferred due to delinquent taxes awaiting sheriff's sale.

(l) Transfers of property to persons licensed under ch. 452, Stats., (real estate broker) solely for the purpose of facilitating sale of property, provided the sales contract stipulates that property shall meet the rules if it is not sold within a year, and provided that, before subsequent transfer, the transferee present a stipulation as described in this chapter, and that compliance shall be no later than one year after date of the subsequent transfer;

(m) Transfers to trustees in court-declared bankruptcies, provided that before subsequent transfer, the transferee present a stipulation as described in this chapter, and that compliance shall be no later than one year after date of the subsequent transfer; and

(n) Transfers pursuant to condominium declaration as under ch. 703, Stats.

Note: It is the intent of this definition to exempt transactions which are involuntary, for security purposes or for nominal consideration.

(33) "Vapor barrier" means a material, including vapor barrier paint, with a vapor transmission rate not greater than 1.00 perm.

(34) "Vented" means provided with outside air by natural or mechanical means via permanent openings. This venting may be for purposes of removing moisture, exhausting fumes or for providing combustion air.

History: Cr. Register, February, 1983, No. 326, eff. 3-1-83; am. (1) and (6), r. and recr. (4) and (11), r. (22), renum. (10), (12) to (21) to be (12) to (22) and am. (16), (17) and (22), cr. (10), Register, December, 1984, No. 348, eff. 1-1-85; renum. (2) to (23) to be (5), (6), (8), (10) to (15), (17), (19), (20), (23), (24), (25), (27) to (33) and am. (24), (27), (32) (intro.) and (k), cr. (2), (4), (13), (22), (32) (n) and (34), Register, November, 1985, No. 359, eff. 12-1-85; emerg. am. (1), cr. (3), (4m), (7), (8m), (9), (12m), (16), (17m), (21) and (26), eff. 2-17-86; am. (1), cr. (3), (4m), (7), (8m), (9), (12m), (16), (17m), (21) and (26), Register, June, 1986, No. 366, eff. 7-1-86.

**ILHR 67.05 Energy efficiency standards.** Any building containing rental units, except those specified in s. ILHR 67.03 (2), transferring ownership after January 1, 1985, shall meet the minimum prescriptive energy conservation measures specified in this section, unless an exemption has been issued under s. ILHR 67.06, unless a petition for variance has been granted as specified in s. 101.02 (6), Stats., or unless a waiver or stipulation has been issued as specified in s. ILHR 67.08 (2) and (3).

(1) **INSULATION.** (a) *Insulation of attic areas and access panels or doors.* Insulation shall be provided in all accessible areas as specified in Table 67.05-A.

TABLE 67.05-A  
INSULATION OF ATTICS AND ACCESS PANELS OR DOORS

	If insulation of an R-Value less than or equal to R-5 is present	If insulation of an R-Value greater than R-5, but less than or equal to R-10 is present	If insulation of an R-Value greater than R-10, but less than R-19 is present	If insulation of an R-Value of R-19 or greater is present
Attics (a)(b)(c)	Insulation shall be added to bring the total insulation level to R-38	Insulation shall be added to bring the total insulation level to R-38	R-19 insulation shall be added to the existing insulation	No additional insulation is required
Horizontal Access Panels or Doors to Attics or Other Vented Spaces	Insulation shall be added to bring the total insulation level to R-19	Insulation shall be added to bring the total insulation level to R-19	Insulation shall be added to bring the total insulation level to R-19	No additional insulation is required
Vertical Access Panels or Doors to Attics or Other Vented Spaces	Insulation shall be added to bring the total insulation level to R-5	No additional insulation is required	No additional insulation is required	No additional insulation is required

(a) Wall and ceiling cavities open to the attic area shall be insulated.

(b) If knob and tube wiring is present, insulation shall be installed in such a way as not to cause a hazard. The owner may wish to consult the municipal inspector or an insulation contractor for the correct insulation procedure.

(c) If floor boards are present, insulation shall be installed over the floor boards to the required R-value or the cavities below the floor boards shall be completely filled with insulation.

(b) *Insulation of box sills, side walls and floors.* Insulation shall be provided in all accessible areas as specified in Table 67.05-B

TABLE 67.05-B  
INSULATION OF BOX SILLS, SIDE WALLS AND FLOORS

	If insulation of an R-Value less than or equal to R-2.5 is present	If insulation of an R-Value greater than R-2.5, but less than or equal to R-10 is present	If insulation of an R-Value greater than R-10 is present
Box Sills (a)	Insulation shall be added to bring the total insulation level to R-19	R-11 insulation shall be added to the existing insulation	No additional insulation is required
Side Walls (a) (b) (c) (d)	Insulation shall be added to bring the total insulation level to R-11	No additional insulation is required	No additional insulation is required
Floors over Vented Spaces (a) (e)	Insulation shall be added to bring the total insulation level to R-19	R-11 insulation shall be added to the existing insulation	No additional insulation is required

(a) Walls or floors which separate the rental unit from a garage which is unvented or is vented with outside air shall be insulated, if accessible.

(b) If a garage is attached to a rental unit and the garage is vented with outside air which is heated or supplied with heated air from another source, then the exterior walls of the garage shall be insulated, if accessible.

(c) Wall and ceiling cavities open to the attic area shall be insulated.

(d) If knob and tube wiring is present, insulation shall be installed in such a way as not to cause a hazard. The owner may wish to consult the municipal inspector or an insulation contractor for the correct insulation procedure.

(e) Structural concrete floors or ceilings are considered to be inaccessible due to the difficulty of attaching insulation and fire barriers.

(c) *Insulation of ducts and pipes.* Insulation shall be provided in all accessible areas as specified in Table 67.05-C.

TABLE 67.05-C  
INSULATION OF DUCTS AND PIPES

BUILDING ELEMENT	AMOUNT OF INSULATION REQUIRED
Heating Supply and Return Ducts Located In: Vented Spaces	R-5
Uninsulated Basements Which have 12 inches or More Average Accessible Exposure	R-5
Crawl Spaces Which Have Insulated Ceilings	R-5
Basements Which Have Insulated Ceilings	R-5
Heating Supply Ducts Located In Uninsulated Basements With Less Than 12 Inches Average Accessible Exposure	R-5
Steam Heating Pipes Not Located In Habitable Rooms, Kitchens or Bath or Toilet Rooms	R-4
Hydronic Heating Pipes Not Located In Habitable Rooms, Kitchens or Bath or Toilet Rooms	R-2
Domestic Hot Water Pipes: Circulating	R-2
Noncirculating Hot and Cold Water Pipes Within 5 Feet of Water Heater	R-2

(d) *Insulation of basements and crawl spaces.* 1. Basements. Except as provided in subd. 2., exterior foundation walls shall be insulated to a level of R-5. The insulation shall be applied to the exterior of the foundation over the exposed accessible areas and shall extend to at least 9 inches below grade.

2. Exceptions. The insulation required by subd. 1. may be omitted if any of the following provisions are met:

a. The average height of the accessible, exposed area of the exterior foundation wall is less than 12 inches. The average height shall be calculated as the accessible, exposed foundation area divided by the accessible perimeter; or

b. The ceiling is insulated as specified in Table 67.05-D; or

c. A high efficiency, non-electric heating plant is provided or the existing plant is retrofitted as specified in Table 67.05-E; or

d. The full height of the interior foundation wall is insulated to a level of R-5 or more.

3. Crawl spaces. a. Unvented crawl spaces. Unvented crawl spaces shall be insulated in accordance with subd. 1.

b. Vented crawl spaces. The ceilings of vented crawl spaces shall be insulated as specified in Table 67.05-D. Insulation of the walls of vented crawl spaces is ineffective and will not satisfy the requirements of this subsection.

TABLE 67.05-D

## INSULATION OF CEILINGS OF CRAWL SPACES AND BASEMENTS

Amount of Insulation Present	Amount of Insulation Required
If insulation of an R-Value less than or equal to R-2.5 is present	Insulation shall be added to bring the total insulation level to R-19 (a) (b)
If insulation of an R-Value greater than R-2.5 but less than or equal to R-10 is present	R-11 insulation shall be added to the existing insulation (a) (b)
If insulation of an R-Value greater than R-10 is present	No additional insulation is required

(a) Precautions shall be taken to prevent the freezing of water service pipes located in that space. The pipes shall be insulated to R-5 or a suitable alternative shall be provided to prevent freezing.

(b) If ceilings over crawl spaces which have earth floors are insulated, then a vapor barrier shall be installed over the floor of the crawl space.

TABLE 67.05-E

## HEATING PLANT REPLACEMENTS AND RETROFITS

The insulation required in subd. 1. may be omitted if a high efficiency, non-electric heating plant meets one of the following 2 conditions:

(1) A heating plant with an AFUE of 80% or greater is installed (a);

(2) A heating plant is installed which is retrofitted to incorporate all of the following components listed for the appropriate type of equipment and fuel type (a) (b) (c).

EQUIPMENT	GAS FIRED SYSTEMS	OIL FIRED SYSTEMS
FURNACE	1) Intermittent Ignition Device; and 2) Power Burner or Condensing Secondary Heat Exchanger.	1) Flame Retention Head Burner
HYDRONIC	1) Intermittent Ignition Device; 2) Power Burner or Condensing Secondary Heat Exchanger; and 3) Ambient Activated Reset Control & Cutout at 55°F.	1) Flame Retention Head Burner; and 2) Ambient Activated Reset Control & Cutout at 55°F
STEAM	1) Intermittent Ignition Device; 2) Power Burner or Condensing Secondary Heat Exchanger; and 3) Properly installed and adjusted valves and vents to assure even heat distribution to the living areas.	1) Flame Retention Head Burner; and 2) Properly installed and adjusted valves and vents to assure even heat distribution to the living areas.

(a) The owner shall provide written documentation to the inspector from a heating contractor which demonstrates that the heating plant has been furnished with the components listed in Table 67.05-E or that a heating plant has been installed which provides the required AFUE.



(b) Retrofits which incorporate other components may be accepted by the department through the petition for variance process as described in ch. ILHR 3.

(c) Furnaces equipped with an operative sidearm used for heating service water may not be retrofitted to meet the requirements of this section.

(e) *Insulation of garages which are located in the basements or ground floors of rental units.* Garages which are located in the basements or ground floors of rental units shall be insulated in accordance with subds. 1. to 4.

1. Unvented garages located in the basements or ground floors of rental units shall be insulated as specified in par. (d) 1.

2. Vented garages which are heated and are located in basements or ground floors of rental units shall be insulated as specified in par. (d) 1.

3. Garages which are located in basements or ground floors of rental units and which are vented with unheated outside air shall be insulated as specified in par. (d) 3. b., if accessible.

4. The interior sides of structural concrete floors or ceilings are considered to be inaccessible due to the difficulty of attaching insulation with fire barriers.

(2) **WINDOWS.** All windows shall be double glazed or shall be provided with exterior or interior storm windows except that windows of store fronts are exempt from the requirements of this subsection. Where exterior storms are installed over openable windows required for natural ventilation, a portion of the storm shall be openable from the inside. Windows located in boiler or furnace rooms do not need to be double glazed or equipped with storms. Windows located in basement areas which are not habitable rooms may be permanently sealed and insulated in lieu of double glazing or installing exterior or interior storm windows.

(3) **WEATHERSTRIPPING.** Windows, including basement windows, which are designed to be opened, doors exposed to the exterior, and doors and access panels to attic or other vented spaces shall be provided with weatherstripping. All swinging exterior doors shall be equipped with a doorsweep. Any crack that exceeds 0.10 inches shall be weatherstripped. Windows located in boiler or furnace rooms need not be weatherstripped.

(4) **CAULKING.** All accessible exterior joints within the first 3 stories between the foundation and box sill; around the windows, including basement windows, and door frames; at penetrations from utility services and pipes, dryer vents and all other openings or cracks in the exterior building envelope shall be caulked, gasketed or otherwise sealed. This requirement does not apply to openings for combustion air and joints in the siding.

(5) **DOORS.** Patio doors shall be insulated, double glazed or equipped with a storm door. Where no vestibule exists, inward swinging exterior doors shall be insulated, double glazed or equipped with a storm door. Door lites need not be double glazed if they are part of the door. All storm doors shall be equipped with a self-closing device.

(6) **MOISTURE CONTROL.** (a) *Ceilings.* Minimum ventilation shall be provided above the ceiling or attic insulation. The free area of ventila-

tion shall be at least 1/300 of the horizontal area. Where overhangs with soffits are provided, one-half of the free area shall be near the eaves and one-half in the upper one-third of the roof or gable. Where it is impractical to install gravity venting, power vent systems may be used to provide equivalent ventilation. Power vents shall be connected to a humidistat.

(b) *Crawl spaces.* Minimum ventilation shall be provided in unheated crawl spaces. The area of ventilation shall be at least 1/300 of the floor space. The area of ventilation shall be distributed equally to at least 2 openings in the foundation wall. The openings shall be located to provide cross ventilation. Where accessible, a vapor barrier shall be applied to cover the exposed earth.

(7) **EQUIPMENT.** All heating equipment which is not electric and all water heaters which are not electric shall have been examined within 6 months prior to the date of the energy efficiency inspection by a contractor, service technician, or energy supplier to ensure that the equipment is properly adjusted and maintained. Water heaters located in vented spaces and in basements and crawl spaces which are uninsulated or have insulated ceilings shall be provided with insulated jackets with a minimum insulating value of R-5. Insulated jackets are not required for water heaters stamped as meeting ASHRAE 90-75, 90-77 or 90A-80. Combustion air openings shall be unobstructed. All showers shall be equipped with flow restricters rated at three gallons per minute or less. Through-wall air conditioners shall be fully covered, and effectively sealed from the inside or outside or both during the heating season.

Note 1: The department will accept as evidence a service report signed and dated by the contractor, service technician or energy supplier that the heating equipment and water heater is properly adjusted and maintained.

Note 2: ASHRAE is an acronym for the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. Copies of ASHRAE standards for domestic water heating systems may be purchased from the ASHRAE Publications Sales Department, 1791 Tullie Circle N.E., Atlanta, Georgia 30329.

History: Cr. Register, February, 1983, No. 326, eff. 3-1-83; am. (intro.), (2) to (5) and (7), r. and recr. table, Register, December, 1984, No. 348, eff. 1-1-85; emerg. am. table, (6) (b) and (7), eff. 1-1-85; am. (intro.), (2) to (5) and (7), r. and recr. (1), Register, November, 1985, No. 359, eff. 12-1-85; am. table 67.05-C, Register, December, 1985, No. 360, eff. 1-1-86; emerg. am. table 67.05-C, cr. (1) (d) and (e), eff. 2-17-86; am. table 67.05-C, cr. (1) (d) and (e), Register, June, 1986, No. 366, eff. 7-1-86.

**ILHR 67.06 Cost payback exemptions.** No specific energy conservation measure may be required under s. ILHR 67.05 (1) to (5) and (7) where the cost payback obtained from installing the specific energy measure exceeds 5 years. In order to receive an exemption for a specific energy measure, the owner shall submit evidence to the department to demonstrate that the cost payback for the specific energy measure exceeds 5 years. Envelope cost payback calculations shall be made in accordance with this section unless otherwise approved by the department. All calculations and analyses shall be based on the actual conditions to which the specific energy measure is subject. Other nonenvelope cost payback calculations utilizing principles and concepts outlined in this section may be approved by the department. The final acceptance of any cost payback shall be made by the department.

(1) **APPLICATION FOR COST PAYBACK EXEMPTIONS.** Any request for an exemption of a specific energy conservation measure based on cost Register, June, 1986, No. 366

payback shall be made in writing on application forms provided by the department.

Note: See Appendix for an example of the application form (SBD-7303).

(2) **PROCESSING APPLICATIONS FOR EXEMPTIONS.** (a) *Information required.* Any application for an exemption shall be submitted to the department for processing along with the 5-year payback calculations, drawings and pictures describing the specific energy conservation measure to be exempted, fuel bills or utility documentation of fuel cost, the cost estimate for the installed specific energy conservation measure, and processing fees. The application form shall be signed and dated by the owner requesting the exemption.

(b) *Department processing.* The department shall evaluate and process the application in accordance with this section and shall process the applications for exemption in the order of the date the applications are received by the department. All forms shall be completed and all information requested shall be received by the department before processing of the exemption will occur. Submitted cost estimates which differ significantly from the average or typical costs established by the department, will be subject to department examination. The applicant may be asked for additional information concerning the particular energy conservation measure. Analyses submitted on department worksheets or pre-approved analyses shall receive priority over alternative analysis methods.

(3) **EXEMPTION FOR FOUNDATION INSULATION.** A request for an exemption from insulation of basements and unvented crawl spaces need only include an analysis of the cost payback for installing insulation at the exterior of the foundation wall.

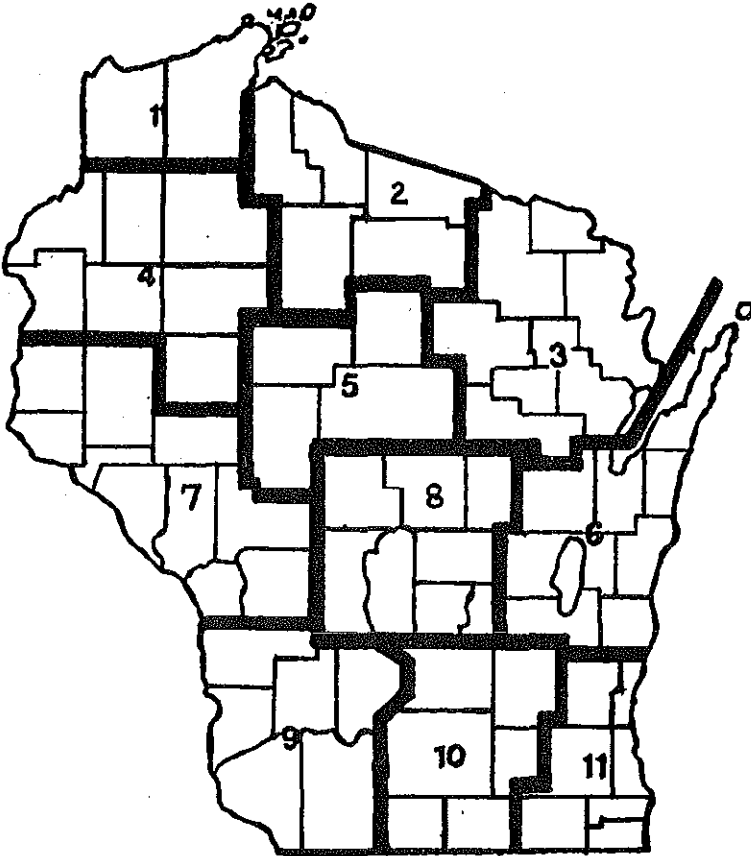
(3m) **EXEMPTION FOR STORM WINDOWS.** Any request for an exemption from storm windows shall include an analysis of the cost payback for each of the following conditions:

- (a) Installing storm windows from the exterior, if accessible; and
- (b) Installing storm windows from the interior, if accessible.

(4) **PROCEDURES FOR CALCULATING PAYBACK.** The calculation of the envelope energy savings and the determination of the economic feasibility for each minimum energy efficiency standard shall be computed as follows:

FIGURE 67.06  
DEGREE DAYS PER YEAR

Wisconsin Division of State Energy Degree Day Zones



Zone 1 - 9,169  
Zone 2 - 9,114  
Zone 3 - 8,460  
Zone 4 - 8,721  
Zone 5 - 8,487

Zone 6 - 8,098  
Zone 7 - 8,388  
Zone 8 - 8,201  
Zone 9 - 7,171  
Zone 10 - 7,730  
Zone 11 - 7,444

(a) *Energy savings calculations.* The following energy savings equation shall be used to calculate the heat loss of the specific energy measure:

$$ES = \frac{(U_i - U_f) \times A \times D \times 24}{K \times V}$$

where:

ES = The fuel or energy savings in the appropriate energy units for the estimated period; e.g., hundreds of cubic feet of natural gas, gallons of fuel oil, or kilowatt-hours of electricity.

Ui = U value of the existing building element, including any insulation that is already contained in the building element being evaluated, expressed in Btu/hr - ft<sup>2</sup>-F°.

Uf = U value of the existing building element, including the level of insulation required in Table 67.05 for the specific building element being evaluated, expressed in Btu/hr - ft<sup>2</sup>-F°.

A = The gross area of the building element being evaluated, in square feet.

V = The heating value of the fuel type:

Oil	138,500 Btu/Gal
Gas	100,000 Btu/CCF
Electricity	3413 Btu/Kilowatt-Hr
LP (Propane & Butane)	91,500 Btu/Gal
Coal	10,000 Btu/lb
Wood	4,000 Btu/lb or 25,000,000 Btu/cord

K = A correction factor which includes the effects of rated full load efficiency, part load performance, oversizing and energy conservation devices. The following factors shall be used unless higher AFUE's for newer equipment can be substantiated:

LP	0.55
Gas	0.55
Oil	0.55
Electricity	1.00
Wood	0.50
Coal	0.50

D = Number of 65° F degree days for the estimated period based on geographical zones in Figure 67.06.

(b) *Energy price.* The current retail price per unit of energy (P) shall be determined for the annual energy savings at the time the calculations are submitted.

(c) *Cost of improvement.* The actual total cost (C) of the energy savings improvement shall be determined and an itemized breakdown of the total cost for labor and materials shall be submitted to the department. Additional information may be requested from the applicant if the cost is outside the range of expected, current regional costs.

(d) *Cost payback.* The cost payback period shall be calculated using the following formula:

$$P.B. = \frac{C}{P \times ES}$$

where:

- P.B. = Payback in number of years  
 C = Total cost of energy measure  
 ES = Total energy savings  
 P = Current retail price of energy unit

(5) **PAYBACK LESS THAN 5 YEARS.** If the payback period (P.B.) is less than or equal to 5 years, the specific energy measure shall be installed.

(6) **PAYBACK EXCEEDS 5 YEARS.** If the payback period (P.B.) is more than 5 years, the department shall issue an exemption. Although an exemption may be issued for any requirement, the department may specify an alternative requirement.

(7) **DEPARTMENT DETERMINATION AND NOTIFICATION.** After the department reviews the calculations and information submitted by the owner, the department shall notify the owner of its findings in writing. The department shall review and make a determination on payback calculations within 15 business days of receipt of all calculations and documents necessary to complete the review.

(8) **OWNER'S RESPONSIBILITY.** Upon receipt of the department's determination, the owner shall install the specific energy measure or provide a copy of the exemption letter to the certified inspector.

(9) **EXEMPTION EXPIRATION.** The exemption shall be valid for a period of 5 years from the date specified on the exemption.

*History: Cr. Register, February, 1983, No. 326, eff. 3-1-83; r. and recr. Register, December, 1984, No. 348, eff. 1-1-85; emerg. r. (3), eff. 1-1-85; am. (7), Register, April, 1985, No. 352, eff. 5-1-85; am. (2) (b), (4) (a) and (6), r. and recr. (3), Register, November, 1985, No. 359, eff. 12-1-85; renum. (3) to be (3m), cr. (3), Register, December, 1985, No. 360, eff. 1-1-86; emerg. r. and recr. (3), eff. 2-17-86; r. and recr. (3), Register, June, 1986, No. 366, eff. 7-1-86.*

#### **Subchapter IV Inspection and Certification of Rental Units**

**ILHR 67.07 Request for energy efficiency inspection.** An owner of a rental unit may request an energy efficiency inspection from the department or any inspector certified by the department under ch. ILHR 68 for the purpose of determining whether the rental unit meets the energy efficiency standards specified in this chapter. If an owner, after reasonable effort, is unable to procure an inspection from an authorized municipality or an independent certified rental unit energy inspector, a request for an inspection may be made to the department.

(1) **APPLICATION FOR INSPECTION FROM THE DEPARTMENT OR MUNICIPALITY.** Where an owner requests the inspection from the department or municipality, the owner shall apply for the inspection on forms obtained from the department or municipality.

*Note: A copy of the application for inspection form (SBD-7267) is contained in the appendix.*

(2) **FILING OF APPLICATION.** No application for inspections will be accepted by the department or municipality that does not contain all of the information requested on the application form. The application shall be filed with the department or municipality enforcing this chapter.

(3) **FEES.** (a) *Municipal fees.* Any fee required by the municipality for administering and enforcing this chapter shall be deposited with the municipality at the time the application is filed.

(b) *Department fees.* Where the department administers and enforces this chapter, the fees required for inspection and certification shall be submitted at the time the application is filed with the department.

(c) *Certified inspection fees.* Where inspections are performed by a certified inspector, other than the department or municipality, the certified inspector may charge a fee to cover the cost of the inspection and issuance of the certificate as specified in ch. Ind 69, Fee Schedule.

(4) **INSPECTIONS.** All energy efficiency inspections for the purpose of certifying rental units under this chapter shall be performed by the department, municipality or inspector certified by the department.

(5) **ACTION TO INSPECT.** The municipality or department performing inspection services under this chapter shall perform inspections within 10 business days after an application is filed.

History: Cr. Register, February, 1983, No. 326, eff. 3-1-83; am. (5), Register, April, 1985, No. 352, eff. 5-1-85.

**ILHR 67.08 Issuance of certificate, waiver or stipulation.** (1) **CERTIFICATE OF COMPLIANCE.** If upon inspection, the inspector determines that the building conforms to energy conservation measures specified in this chapter, the inspector shall authorize the certificate of compliance by signing and affixing the DILHR Transfer Authorization label and then issue the certificate prescribed by the department and file a copy of the certificate with the department. The department shall issue the certificate within 10 business days of determination that the building conforms to energy conservation measures.

Note: A copy of the certificate form (SBD-7114) is contained in the Appendix.

(a) *Certificate forms and transfer authorization stamps.* Any certified inspector may obtain certificate forms and transfer authorization stamps from the department.

(b) *Requests for certificate form.* All requests for certificate forms shall be made in writing. The fee for the certificate forms shall accompany the request. The department shall respond to all requests for certificate forms within 10 business days of receipt of an application for forms and the required fee.

Note: Copies of the certificate forms are available at no charge from:

Department of Industry, Labor and Human Relations  
Division of Safety and Buildings  
Post Office Box 7969  
Madison, Wisconsin 53707

(c) *Notice of noncompliance.* If upon inspection, an inspector determines that the rental unit does not conform to the energy measures specified in this chapter, the inspector shall specify in writing the energy conservation measures necessary to make the rental unit comply with the energy efficiency standards specified in this chapter and notify the owner of the findings. The department shall specify the energy conservation measures necessary to make the rental unit comply with the energy efficiency standards within 10 business days of completion of the inspection.

1. Stipulation may be issued where the energy efficiency standards are not met as specified in sub. (3).

2. A certification may be issued after a reinspection if all the required energy measures have been installed. Any request for reinspection performed by the department shall be accompanied with a fee for reinspection. If the effective date of any rule in this chapter occurs after a notice of noncompliance (inspection field report) has been issued, then only the energy measures specified in the notice of noncompliance need be installed provided that a certificate of compliance is issued within 30 days after the date of the notice of noncompliance.

(2) **WAIVER OF CERTIFICATE.** If a rental unit is scheduled for demolition within 2 years, the department, a department agent or an authorized municipality may issue a written waiver to the energy efficiency standards specified in this chapter. A copy of the waiver shall be filed with the authorized municipality or department agent and the department. No waiver may be requested for a rental unit which has been issued a previous waiver or stipulation unless the rental unit had received a certificate of compliance from a certified inspector on some date after the date of issuance of the latest waiver or stipulation under sub. (3).

(a) *Filing of waiver.* The waiver shall be on department forms and signed by the purchaser and submitted to the authorized municipality or department agent or the department for authorization. The department, department agent, or authorized municipality shall place a transfer authorization stamp on the waiver. Authorized municipalities and department agents shall obtain transfer authorization stamps from the department. Where a waiver is issued by the authorized municipality or a department agent, a copy shall be filed with the department.

Note: A copy of the waiver of certificate form (SBD-7116) is contained in the Appendix.

(b) *Conditions of waiver.* The waiver shall be conditioned on the demolition of the rental unit within the 2 years of the date of the waiver.

(c) *Notification of demolition.* The owner shall notify the department in writing the date that the building was demolished.

(d) *Failure to demolish.* If demolition does not occur within 2 years of issuance of the waiver, the department or the municipality may do one or more of the following:

1. Order demolition of the rental unit no sooner than 90 days after the order;
2. Withdraw any certificate of occupancy; or
3. Order the owner to bring the rental unit in compliance with the energy measures specified in this chapter.

(d) *Department orders.* 1. Order for demolition. Where the department orders the building to be demolished, the owner shall notify the department in writing the date the building was demolished.

2. Order for compliance. Where the department orders the building to comply with the energy measures in this chapter, the owner shall notify the department that the energy measures have been installed and apply for an inspection of the rental unit as specified in s. ILHR 67.07.



(3) **STIPULATION.** (a) *Stipulation requirements.* If the rental unit does not meet the provisions of this chapter, the transferee or new owner may present a signed stipulation issued by the department, department agent or authorized municipality to the register of deeds for recording.

1. Any rental unit for which a stipulation was issued on or after January 1, 1985, but before August 1, 1985, is exempt from any insulation requirement at the basement walls or ceiling.

2. Any rental unit for which a stipulation was issued from August 1, 1985, but before February 17, 1986, but for which no certificate of compliance has been issued, shall be brought into compliance with the foundation insulation requirements specified in s. ILHR 67.05 (1) (d) and (e) on or before the date specified in the stipulation.

3. If a stipulation is issued after February 17, 1986, the new owner of the rental unit shall be responsible for bringing the rental unit into compliance with the provisions of this chapter which are in effect on the date of issuance of the stipulation.

(b) *Owners responsibility.* 1. The new owner shall bring the rental unit into compliance and receive a certificate of compliance from a certified inspection no later than one year after the date of transfer. The date of transfer is the date the stipulation is validated by the department, department agent or authorized municipality, unless acceptable documentation of another date is provided to the department.

2. No stipulation may be requested for a rental unit which has been issued a previous stipulation or waiver unless the rental unit had received a certificate of compliance from a certified inspector on some date after the date of issuance of the latest waiver or stipulation under sub. (2).

(c) *Transfer of stipulation responsibility with property.* A purchaser who has agreed to a stipulation may transfer both the property and the stipulation to another person within the initial one year period. The transferee shall sign the original stipulation in the appropriate space provided on that document. The transferee shall send a copy of the modified stipulation to the department or authorized municipality which issued the original stipulation. Authorized municipalities shall file a copy of the modified stipulation with the department. The stipulation may not be extended beyond the original one year agreement.

(d) *Issuance of stipulations to purchasers who wish to occupy the rental unit on termination of an existing lease.* A purchaser of a rental unit who intends to occupy that rental unit as an owner but is unable to occupy the rental unit because it is leased to another person at the time of transfer, shall obtain a certificate of compliance or a stipulation. The stipulation shall be obtained as specified in this section. The purchaser shall indicate "owner to occupy upon termination of existing lease" in the signature box of the stipulation form. The purchaser, within one year after the date of transfer, shall either:

1. Bring the rental unit into compliance with the energy measures specified in this chapter and obtain a certificate of compliance from a certified inspector; or

2. Take occupancy of the rental unit and occupy the rental unit for at least one year. Upon occupancy, the purchaser shall notify, in writing, the department or the authorized municipality which issued the stipula-

tion, stating the date of the occupancy and including a copy of the original stipulation. After review and approval, the department or authorized municipality shall then terminate the stipulation and confirm the termination with the owner by return letter. Where a stipulation is terminated by an authorized municipality, the authorized municipality shall notify the department of the termination of the stipulation.

(e) *Filing stipulation.* The stipulation shall be on department forms signed by the purchaser and be submitted to an authorized municipality, a department agent or the department for authorization. Where a stipulation is issued by the authorized municipality, or by a department agent, a copy shall be filed with the department. Only the department, department agent or authorized municipality may place transfer authorization stamps on the stipulation. Authorized municipalities and department agents shall obtain transfer authorization stamps from the department.

Note: A copy of the stipulation form (SBD-7115) is contained in the Appendix.

(f) *Stipulation inspection.* Once the new owner has installed the necessary energy conservation measures, the owner shall apply for inspection from a certified inspector, authorizing municipality or the department.

1. If upon inspections, it is determined that the rental unit conforms to the conditions specified in the stipulation, the inspector shall issue a certificate indicating the rental unit conforms to the energy measures specified in this chapter. The department shall issue the certificate within 10 business days after determination that the rental unit conforms to the conditions specified in the stipulation.

2. If upon inspection, it is determined that the rental unit does not conform to the conditions specified in the stipulation, the inspector shall notify the owner in writing, specifying the measures necessary for compliance. A certification may be issued after reinspection if all the required energy measures have been installed.

3. The department shall conduct a clerical follow-up no later than 180 days after the stipulated compliance date to determine if a certificate has been issued for the rental unit. If no certificate is on file, the department shall order the owner with a specified time to comply with the energy measures and take the necessary action to secure compliance.

(g) *Filing of certification, waiver and stipulation.* A copy of the certificate, waiver or stipulation shall be filed with the department.

History: Cr. Register, February, 1983, No. 326, eff. 3-1-83; am. (1) (intro.) and (a), (2) (intro.), renum. (2) (a) to (d) to be (2) (b) to (e), cr. (2) (a) and (3) (c), r. (3) (b), renum. (3) (intro.) and (a) to be (3) (a) and (b) and am., Register, December, 1984, No. 348, eff. 1-1-85; am. (1) (intro.), (b) and (c) (intro.) and (3) (c) 1., Register, April, 1985, No. 352, eff. 5-1-85; am. (1) (c) 2., (2) (intro.) and (a) and (3) (a), renum. (3) (b) to (d) to be (3) (d) to (f) and am. (3) (d), cr. (3) (b) and (c), Register, November, 1985, No. 359, eff. 12-1-85; emerg. r. and recr. (3) (a), (b) and (c), renum. (3) (d) to (f) to be (3) (e) to (g), cr. (3) (d), eff. 2-17-86; r. and recr. (3) (a), (b) and (c), renum. (3) (d) to (f) to be (3) (e) to (g), cr. (3) (d), Register, June, 1986, No. 366, eff. 7-1-86.

**ILHR 67.09 Proof of certification.** The certificate shall be proof that the rental unit complies with the energy measures specified in this chapter. The certificate shall be valid for a period of 5 years from the date specified on the certificate. The certified inspector shall retain a copy of the inspection, Register, June, 1986, No. 366