

1 Department of Energy and Economic Development

2

3 Adopted Amendments of Rules Governing the Home Energy Disclosure

4 Program and the Minimum Energy Efficiency Standards for

5 Residential Rental Units

6

7 Rules as Adopted

8 6 MCAR S 2.2501 Authority and purpose.

9 A. Authority. The department's authority to adopt these
10 rules is contained in Minnesota Statutes, sections ~~116J.07,~~
11 ~~clause (i); 116J.08, clause (a);~~ 116J.09, clause (h); 116J.10,
12 clause (a); and 116J.27.

13 B. Purpose. The purpose of 6 MCAR SS 2.2501-2.2510 is to
14 establish a program requiring mandatory minimum energy
15 efficiency standards for rental buildings, procedures for energy
16 evaluations, and the certification of evaluators.

17 6 MCAR S 2.2502 Definitions.

18 A. Scope. For the purposes of 6 MCAR SS 2.2501-2.2510, the
19 following terms have the meanings given them.

20 B. Accessible. "Accessible" means, for purposes of
21 compliance with 6 MCAR S 2.2503, any area that can be made more
22 energy efficient with the installation of program measures that
23 are not determined to be economically infeasible and which area
24 is exposed, without the removal of permanent parts of the
25 structure.

26 C. Department. "Department" means the Department of Energy
27 and Economic Development.

28 D. Apartment building. "Apartment building" means any
29 structure containing dwelling units which are rented.

30 E. Conditioned space. "Conditioned space" means space
31 within a building that is heated or cooled by an energy using
32 system.

33 F. Cooling degree day. "Cooling degree day" means a unit,
34 based upon temperature difference and time, used in estimating
35 fuel consumption and specifying nominal cooling load in summer.

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1 For any one day when the mean temperature is more than 65
2 degrees Fahrenheit, there exist as many cooling degree days as
3 there are Fahrenheit degrees difference in temperature between
4 the mean temperature for the day and 65 degrees Fahrenheit.

5 G. Economic feasibility. For the purpose of these rules,
6 the test of economic feasibility is met when the savings in
7 energy procurement costs, based on residential energy costs as
8 certified by the commissioner in the State Register, or on local
9 fuel costs, exceed the cost of acquiring and installing each
10 standard, as amortized over the subsequent ten-year period. The
11 costs of acquiring and installing each standard may include the
12 costs of restoring the building to the condition that existed
13 immediately before the standard was installed, costs to install
14 a vapor barrier where determined necessary, and displacement
15 costs of temporary tenant relocation where determined necessary.

16 H. Energy conservation measure. "Energy conservation
17 measure" means energy-saving physical improvements to the
18 building that are primarily designed to reduce energy
19 consumption including, but not limited to, modifications to the
20 building structure, the heating, ventilating, and air
21 conditioning systems, and the lighting.

22 I. Caulking. "Caulking" consists of pliable materials used
23 to reduce the passage of air and moisture by filling small gaps
24 located at fixed joints on a building. "Caulking" includes, but
25 is not limited to, materials commonly known as "sealants,"
26 "putty," and "glazing compounds."

27 J. Weatherstripping. "Weatherstripping" consists of narrow
28 strips of material placed over or in movable joints of windows
29 and doors to reduce the passage of air and moisture when the
30 windows and doors are closed.

31 K. Ceiling or attic insulation. "Ceiling or attic
32 insulation" consists of a material primarily designed to resist
33 heat flow which is installed between the conditioned area of a
34 building and an unconditioned attic. Where the conditioned area
35 of a building extends to the roof, the term "ceiling or attic
36 insulation" also applies to such material used between the

1 underside and upperside of the roof, or where technically
2 feasible, on the upperside of the roof.

3 L. Wall and foundation insulation. "Wall and foundation
4 insulation" consists of a material primarily designed to resist
5 heat flow which is installed within or on the walls between
6 conditioned areas of a building and unconditioned areas of a
7 building or the outside.

8 M. Floor insulation. "Floor insulation" consists of a
9 material primarily designed to resist heat flow which is
10 installed between the first level conditioned area of a building
11 and an unconditioned basement, a crawl space, or the ground
12 beneath it. Where the first level conditioned area of a
13 building is on a ground level concrete slab, the term "floor
14 insulation" also means such material installed around the
15 perimeter of or on the slab. In the case of manufactured homes,
16 the term "floor insulation" also means skirting to enclose the
17 space between the building and the ground.

18 N. Storm or thermal window. "Storm or thermal window"
19 consists of:

20 1. a window or glazing material placed outside or inside
21 an ordinary or prime window, creating an insulating air space,
22 to provide greater resistance to heat flow than the prime window
23 alone; or

24 2. a window unit with improved thermal performance
25 through the use of two or more sheets of glazing material
26 affixed to a window frame to create one or more insulated air
27 spaces. It may also have an insulating frame and sash.

28 O. Storm or thermal door. "Storm or thermal door" consists
29 of:

30 1. a second door, installed outside or inside a prime
31 door, creating an insulating air space;

32 2. a door with enhanced resistance to heat flow through
33 the glass area created by affixing two or more sheets of glazing
34 materials; or

35 3. a primary exterior door with an R-value of at least
36 two.

1 P. Rim joist insulation. "Rim joist insulation" consists of
2 a material primarily designed to resist heat flow which is
3 installed along either side of the rim joist.

4 Q. Fireplace stove. "Fireplace stove" means a
5 chimney-connected, solid fuel-burning stove having part of its
6 fire chamber open to the room.

7 R. Heating degree day. "Heating degree day" means a unit,
8 based upon temperature difference and time, used in estimating
9 fuel consumption and specifying nominal heating load of a
10 building in winter. For any one day, when the mean temperature
11 is less than 65 degrees Fahrenheit, there exist as many heating
12 degree days as there are Fahrenheit degrees difference in
13 temperature between the mean temperature for the day and 65
14 degrees Fahrenheit.

15 S. Positive shut-off. "Positive shut-off" means a manual
16 shut-off device which can be utilized to produce a seal to
17 inhibit the flow of air when a fireplace or fireplace stove is
18 not operating. Examples are damper in fireplace, damper at top
19 of flue, damper in connector pipe, or doors (glass or other) on
20 fireplace or fireplace stove.

21 T. "R" value. "R" value means the measure of resistance to
22 heat flow through a material or the reciprocal of the heat flow
23 through a material expressed in British thermal units per hour
24 per square foot per degree Fahrenheit at 75 degrees Fahrenheit
25 mean temperature.

26 U. Residence. "Residence" means any dwelling let to another
27 used for habitation during all or a portion of the months
28 November through April. A residence may be part of a multi-unit
29 building, multi-family dwelling, or multi-purpose building, but
30 "residence" does not include buildings such as hotels,
31 hospitals, motels, dormitories, sanitariums, nursing homes,
32 schools and other buildings used for educational purposes, or
33 correctional institutions. Each dwelling unit in a rental
34 building is a residence. A manufactured home as defined in
35 Minnesota Statutes, section 168.011, subdivision 8, is a
36 residence for purposes of these rules.

1 V. Rim joist. "Rim joist" means that part of the
 2 residential structure between the top of the foundation wall and
 3 the sub-floor immediately above the perimeter of the floor
 4 joists.

5 6 MCAR S 2.2503 Minimum energy efficiency standards.

6 A. Compliance. Under Minnesota Statutes, section 116J.27,
 7 subdivisions 1, 2, and 3, all residences constructed prior to
 8 January 1, 1976, which are renter occupied during all or a
 9 portion of the months of November through April must be in
 10 compliance with each applicable standard by the date shown in
 11 Exhibit 6 MCAR S 2.2503 A.-1., unless those standards are
 12 determined to be economically infeasible. All building owners
 13 shall initially determine the economic feasibility of these
 14 standards using the calculation procedures adopted by the
 15 department. Those determinations are subject to review and
 16 final determination by the department.

17 Exhibit 6 MCAR S 2.2503 A.-1.
 18 Applicable Energy Efficiency Standards
 19 from 6 MCAR S 2.2503 B.

21 Type of building	22 Date of applicability		
	23 January 1, 1980 24 Standards	25 July 1, 1983 Standards	26 July 1, 1985 Standards
27 Single family	28 1-2	29 1-8 <u>1, 2 or 13, 3-8</u>	30 1, 2 or 13, and 3-12 <u>3, 4, 5, 9, 10, 11, 12</u>
31 Mobile 32 Manufactured 33 home	34 1-2	35 1-8 <u>1, 2 or 13, 3-8</u>	36 1, 2 or 13, and 3-12 <u>3, 4, 5, 9, 10, 11, 12</u>
37 2-4 unit 38 building	39 1-2	40 1-8 <u>1, 2 or 13, 3-8</u>	41 1, 2 or 13, and 3-12 <u>3, 4, 5, 9, 10, 11, 12</u>
42 5-11 unit 43 building	44 1-2	45 1, 3, 5, 6, 7, 8, and 2 or 13; OR 1, 3, 15, and 2 or 13	46 1, 3, 5, 6 7 -7 7 , 8 7 10, 11, 12, and 2 or 13; OR 1, 3, 15, and 2 or 13
47 12 plus unit 48 building	49 1-2	50 1, 3, 5, 6, 7, 8, and 2 or 13; OR 1, 3, 14, and 2 or 13	51 1, 3, 5, 6 7 -7 7 , 8 7 10, 11, 12, and 2 or 13; OR 1, 3, 14, and 2 or 13

54 B. Enumeration. The following are the minimum energy

1 efficiency standards for existing residences constructed prior
2 to January 1, 1976, that are renter-occupied. The following
3 standards shall be used as indicated in Exhibit 6 MCAR S 2.2503
4 A.-1.:

5 1. Install weatherstripping between exterior operable
6 window sash and frames and between exterior doors and frames.
7 Weatherstripping is not required on storm doors or storm windows.

8 2. Caulk, gasket, or otherwise seal accessible exterior
9 joints between foundation and rim joist; around window and door
10 frames; between wall and roof; between wall panels; at
11 penetrations for utility services through walls, floors, and
12 roofs; and at all other openings in the exterior envelope.

13 3. Install storm windows on all single glazed exterior
14 window units enclosing conditioned space.

15 4. Install storm doors on all exterior door openings into
16 conditioned spaces unless a single door, enclosed porch,
17 vestibule, or other appurtenance provides a double door effect
18 or provides an "R" value of two or more.

19 5. Install positive shut-offs for all fireplaces or
20 fireplace stoves, unless an existing damper provides a positive
21 shut-off.

22 6. Install insulation in accessible attics or ceilings to
23 achieve a minimum total "R" value of the insulation of R-19. If
24 there is insufficient space for the installation of the
25 recommended "R" value, then the standard must be based on
26 installing insulation to fill the available space while
27 providing for appropriate ventilation.

28 7. Install insulation in all accessible rim joist areas
29 to achieve a minimum total "R" value of the insulation of R-11.
30 If there is insufficient space for the installation of the
31 recommended "R" value, then the standard must be based on
32 installing insulation to fill the available space.

33 8. Install insulation in or on accessible walls and
34 floors enclosing conditioned spaces to achieve a minimum total
35 "R" value of the insulation of R-11. If there is insufficient
36 space for the installation of the recommended "R" value, then

1 the standard must be based on installing insulation to fill the
2 available space.

3 9. Modify the existing heating system so that it operates
4 at a minimum steady-state efficiency of 75 percent as
5 demonstrated through a flue gas analysis provided for in 6 MCAR
6 S 2.2504 B.4.

7 10. Install insulation in all ceilings or attics between
8 conditioned and unconditioned spaces to achieve a minimum total
9 "R" value of the insulation R-38. If there is insufficient
10 space for the installation of the recommended "R" value, the
11 standard must be based on installing insulation to fill the
12 available space while providing for appropriate ventilation.

13 11. Install insulation in all rim joist areas to achieve
14 minimum total "R" value of the insulation of R-~~11~~ 19, unless the
15 R-value of the existing insulation is R-11 or more. If there is
16 insufficient space for the installation of the recommended "R"
17 value, the standard must be based on installing insulation to
18 fill the available space.

19 12. Install insulation in or on all walls and floors that
20 enclose conditioned spaces to achieve a minimum total "R" value
21 of the insulation of R-11. Walls must include foundation walls
22 of basements, cellars, or crawl spaces. Insulation installed on
23 the exterior of the foundation wall must extend down to two feet
24 below grade level. Insulation installed on the interior or in
25 the foundation wall must be installed from the bottom of the rim
26 joist to the foundation slab or floor. If there is insufficient
27 space for the installation of the recommended "R" value, the
28 standard must be based on installing insulation to fill the
29 available space.

30 13. Caulk, gasket, or otherwise seal interior joints
31 between foundation and rim joist, around window and door frames,
32 between wall and ceiling, at joints between wall and trim
33 boards, at cracks on interior surfaces of walls, and at utility
34 penetrations.

35 14. Install energy conservation measures that have had or
36 are predicted to have a cumulative energy consumption savings of

1 25 percent. These energy conservation measures must be
2 designated in an energy audit conducted by a registered
3 professional engineer or architect or other person determined
4 qualified by the department. The annual energy consumption
5 savings of 25 percent must be based on verified energy
6 consumption, normalized to the average number of heating degree
7 days reported by the nearest National Oceanographic and
8 Atmospheric Administration recording station, for any heating
9 season from 1973-1974 to the present. The energy audit must
10 indicate whether the building complies with standards 1, 2, or
11 13, and 3 of 6 MCAR S 2.2503 B. If the building is not in
12 compliance with those standards, the predicted energy
13 consumption savings resulting from the installation of those
14 standards may be included in the 25 percent cumulative energy
15 consumption savings.

16 15. Install energy conservation measures that have a had
17 or are predicted to have cumulative energy consumption savings
18 of 30 percent. These energy conservation measures must be
19 designated in an energy audit conducted by a registered
20 professional engineer or architect or other person determined
21 qualified by the department. The annual energy consumption
22 savings of 30 percent must be based on verified energy
23 consumption, normalized to the average number of heating degree
24 days reported by the nearest National Oceanographic and
25 Atmospheric Administration recording station, for any heating
26 season from 1973-1974 to the present. The energy audit must
27 indicate whether the building complies with standards 1, 2, or
28 13, and 3 of 6 MCAR S 2.2503 B. If the building is not in
29 compliance with those standards, the predicted energy
30 consumption savings resulting from the installation of those
31 standards may be included in the 30 percent cumulative energy
32 consumption savings.

33 6 MCAR S 2.2504 Conducting the evaluation.

34 A. Disclosure reports. All evaluators shall use a
35 disclosure report approved by the department. Copies of
36 completed disclosure reports must be retained by evaluators for

1 at least five years. The reports must be available for review
 2 by the department. Copies of audits conducted by registered
 3 professional engineers, architects, or other persons qualified
 4 by the department under 6 MCAR S 2.2503 B.14. and 15. must be
 5 submitted to the department within 14 days for review ~~or~~ and
 6 approval.

7 B. General duties of evaluators, registered professional
 8 engineers, architects, and other approved qualified persons.
 9 Evaluators, registered professional engineers, architects, and
 10 other approved qualified persons shall estimate energy savings
 11 and installation costs of each applicable standard using the
 12 calculation procedures in 6 MCAR S 2.2510. An applicable
 13 standard is any standard which can be installed in the residence
 14 to meet the minimum energy efficiency standards in 6 MCAR S
 15 2.2503. Evaluators, registered professional engineers,
 16 architects, and other approved qualified persons shall:

17 1. Inspect and take actual measurements of the building
 18 shell, and inspect the space heating, space cooling, and water
 19 heating equipment. The inspection must include all common areas
 20 and at a minimum the following number of units for the building
 21 being evaluated. The random selection of units to be included
 22 in the sample of units inspected must be done by the evaluator,
 23 registered professional engineer, architect, and other approved
 24 qualified person.

25		Minimum number of units
26	Size of building	included in inspection sample
27		
28	1-5 <u>1-4</u> units	all units
29		
30	5 plus units	5 units + 3 percent of
31		total number of units
32		in the building

33 2. Base economic calculations on local fuel prices, or on
 34 those prices provided by the department, as published in the
 35 State Register.

36 3. Base economic calculations for materials and
 37 installation of measures on prices provided by the department.
 38 Prices must be made available to interested persons by:

39 a. publication in the State Register by the department
 40 of the most recent contractors and suppliers price survey; or

1 b. direct mailing by the department of the most recent
2 price survey to certified evaluators; or

3 c. if the owner contends that the prices provided by
4 the department are not representative of actual costs that would
5 be incurred by installing the measure to comply with the
6 standards, the owner shall obtain at least three bids from bona
7 fide contractors indicating the costs of installing that
8 measure. The lowest bid must then be used in determining
9 whether the standard is economically infeasible.

10 4. Base any cost and savings estimate for any applicable
11 furnace efficiency modification to a gas or oil furnace or
12 boiler on an evaluation of the steady-state efficiency of the
13 heating system.

14 a. For oil furnaces or boilers, the steady state
15 efficiency shall be derived by a flue gas analysis of the
16 measured flue gas temperature and carbon dioxide content.

17 b. For gas furnaces or boilers, the steady state
18 efficiency shall be derived from manufacturer's design data. If
19 the manufacturer's design data are not available at the time of
20 inspection, then a flue gas analysis, as described in a. must be
21 performed.

22 6 MCAR S 2.2505 Presentation of evaluation and audit results. A
23 copy of the disclosure report or audit must be provided to the
24 owner or the owner's agent. The disclosure report or audit
25 must, at a minimum, contain the following information:

26 A. An estimate of the total cost for materials and labor of
27 installation by a contractor of each applicable standard
28 addressed in the evaluation.

29 B. An estimate of the savings in energy costs which would
30 occur during the first year from the installation of each
31 applicable standard addressed by the evaluation.

32 C. An estimate of the payback period, measured in years,
33 from the energy cost savings of each of the applicable standards
34 installed individually.

35 D. A disclosure using the following language or similar
36 language: "The procedures used to make these estimates are

1 consistent with the department's criteria for energy
 2 evaluations. However, the actual installation costs you incur
 3 and energy cost savings you realize from installing these
 4 standards may be somewhat different from the estimates contained
 5 in this disclosure report or audit. Although the estimates are
 6 based on measurements of your building, they are also based on
 7 assumptions which may not be appropriate for your building."

8 E. A listing of the units of the building that were actually
 9 inspected and the date of the inspection, as described in 6 MCAR
 10 S 2.2504 B.1.b.

11 F. The name, address, and telephone number of the person who
 12 conducts the inspection and who completed the disclosure report
 13 or audit.

14 6 MCAR S 2.2506 Prohibitions and-exemption.

15 A.--Prohibitions: The evaluator, registered professional
 16 engineer, architect, or other approved qualified person shall:

17 1. not recommend any supplier or contractor to any owner;

18 2. not endorse the use of specific brand names of
 19 materials or products, persons, firms, or contractors which may
 20 be used to meet any specific standard;

21 3. not make any statements relating to the standards
 22 which may be interpreted as an endorsement of any specific
 23 material or product;

24 4. not exclude any applicable standards in the
 25 presentation of the audit to the owner;

26 5. provide the owner with a written statement of any
 27 interest which he or she or his or her employer has, directly or
 28 indirectly, in the sale or installation of any energy
 29 conservation measure; and

30 6. not conduct an evaluation of a building in which he or
 31 she has an ownership interest or is employed (other than to
 32 conduct the evaluation) by any person having an ownership
 33 interest in the building.

34 B.--Exemption:--If-the-building-is-a-low-rent-housing-project
 35 owned-by-a-public-housing-agency-as-defined-in-Minnesota
 36 Statutes, section 462.421, subdivision 12, the energy audit or

~~1 disclosure-report-provided-for-at-6-MCAR-S-2-2504-may-be
2 provided-by-an-officer,-or-employee-of-the-agency,-if-the-audit
3 is-conducted-in-accordance-with-Code-of-Federal-Regulations,
4 title-24,-sections-865.301-865.310,-if-the-procedures-prescribed
5 in-6-MCAR-S-2-2504-are-followed,-and-if-the-audit-includes-the
6 standards-provided-in-6-MCAR-S-2-2503.--Persons-conducting-these
7 audits-are-exempted-from-the-certification-requirements-of-6
8 MCAR-S-2-2507.--However,-unless-the-officer,-or-employee-of-the
9 agency,-meets-the-requirements-of-6-MCAR-S-2-2503-B-14--or-15,-
10 they-shall-not-conduct-an-energy-audit-for-compliance-with-6
11 MCAR-S-2-2503-B-14--or-15.~~

12 6 MCAR S 2.2507 Qualification procedures for evaluators.

13 A. Prohibition of discrimination. No person shall be denied
14 the right to become an evaluator on the basis of race, religion,
15 nationality, creed, sex, age or sexual preference.

16 B. Training.

17 1. Except as provided in 2. no person is eligible for
18 certification under C. unless he or she has first participated
19 in a training course which has been approved by the department
20 and which covers the subject matter tested in the evaluator
21 certification examination.

22 2. The following persons may take an appropriate
23 department approved orientation session, in lieu of the
24 requirements of 1.:

25 a. any HED evaluator certified before July 1, 1981;

26 b. any person successfully completing an approved 30
27 hour training course for the HED program prior to July 1, 1981;

28 c. registered architects and registered engineers with
29 work experience in energy auditing or the design of
30 institutional, commercial, residential or industrial buildings;

31 d. any person who has six months' energy auditing
32 experience and who has completed 25 energy audits for a
33 nonprofit organization or regulated utility;

34 e. members of the American Institute of Real Estate
35 Appraisers, the Society of Real Estate Appraisers, the
36 Independent Fee Appraisers, or other associations determined by

1 the department to have applicable training requirements for
2 their members;

3 f. certified evaluators for Truth in Housing Programs;

4 g. building officials certified by the Building Codes
5 Division of the Minnesota Department of Administration.

6 C. Certification. Only those persons who satisfy all of the
7 following conditions shall be certified:

8 1. All persons shall take and pass a certification
9 examination conducted by the department. The certification
10 examination must test for the following qualifications:

11 a. a general understanding of the three types of heat
12 transfer and the effects of temperature and humidity on heat
13 transfer;

14 b. a general understanding of residential construction
15 terminology and components;

16 c. a general knowledge of the operation of the heating
17 and cooling systems used in residential buildings, including the
18 need and provision for combustion air;

19 d. a general knowledge of the different types of each
20 applicable program measure, of the advantages and disadvantages
21 and applications of each, and of the DOE installation standards;

22 e. the capability to conduct the energy evaluation
23 including: a working knowledge of energy conserving practices,
24 the ability to determine the applicability of each of the
25 program measures, and proficiency in the auditing procedures for
26 each applicable program measure established in 6 MCAR S 2.2504;

27 f. a working ability to calculate the steady state
28 efficiency of furnaces or boilers; and

29 g. a working knowledge of building and fire codes
30 related to the installation and safety of wood burning
31 appliances.

32 2. All persons shall submit a \$50 certification fee to
33 the department. However, no certification fee may be charged
34 for certified municipal building officials who are directly
35 employed by a municipality as defined in Minnesota Statutes,
36 section 16.84, subdivision 3; or for employees of public housing

1 agencies as defined in Minnesota Statutes, section 462.421,
2 subdivision 12; or for employees of private nonprofit
3 community-based organizations, or regulated utilities, when the
4 evaluations are performed as part of the employee's normal job
5 responsibilities. No certification fee may be charged for those
6 persons upgrading their certification who were certified prior
7 to July 1, 1981.

8 3. All persons shall provide evidence satisfactory to the
9 department of liability and of errors and omissions insurance.
10 The minimum value of protection in each category must be
11 \$50,000, and the insurance must be of the "occurrence" variety
12 where coverage is based on the date when the evaluation is
13 made. A "claims made" policy with a reporting endorsement of at
14 least five years is also acceptable. Coverage is not required
15 for evaluators who are employed by municipal governments or
16 public housing agencies and who perform evaluations as part of
17 their normal job responsibilities. Certified evaluators who
18 have provided a bond to the state as required by the Building
19 Code Division of the Department of Administration are not
20 required to obtain the protection required by this paragraph
21 until that bond expires. In addition, each insurance policy
22 must:

23 a. name the state of Minnesota as a coinsured party,
24 and

25 b. be written by a corporate insurer licensed to do
26 business in the state of Minnesota, or licensed in accordance
27 with Minnesota Statutes, sections 60A.195 to 60A.209.

28 D. Certification examinations. Examinations must be
29 conducted by the department and offered at the following times:

30 1. within two days after the completion of each
31 state-sponsored training course or orientation session, or

32 2. once a month, until June 1982, with a minimum of two
33 examinations per year afterward.

34 E. Other qualified persons. The department may certify
35 other qualified persons to conduct evaluations pursuant to 6
36 MCAR S 2.2503 B.14. and 15. These persons shall be certified

1 only if they:

2 1. have passed the certification examination provided at
3 6 MCAR S 2.2507 C.1.;

4 2. have paid the certification fee provided at 6 MCAR S
5 2.2507 C.2.;

6 3. have fulfilled the requirements for insurance coverage
7 provided at 6 MCAR S 2.2507 C.3.;

8 4. have taken additional training that includes the
9 following subject matter:

10 a. the operation of the various types of heating
11 systems and their controls for multifamily buildings;

12 b. the operation of heating distribution systems for
13 multifamily buildings; and

14 c. retrofit strategies for improving the energy
15 efficiency of heating and distribution systems in multifamily
16 buildings; and

17 5. have passed a certification examination which tests
18 the qualifications needed to conduct an evaluation pursuant to 6
19 MCAR S 2.2503 B.14. and 15.

20 6 MCAR S 2.2508 Recertification of evaluators.

21 A. Term of certification. Certification is valid for one
22 year.

23 B. Recertification procedure. Each year, each evaluator
24 shall be recertified. The following procedures must be
25 completed in order for an evaluator to be recertified:

26 1. Prior to the date of certificate expiration, the
27 evaluator shall attend a recertification course, as required by
28 the department. Successful completion of this course shall
29 recertify the evaluator for the next year. Evaluators not
30 completing the recertification course prior to the expiration
31 date of their certification shall be recertified by completing
32 the recertification course and successfully retaking the
33 certification examination.

34 2. The recertification course requirements for evaluators
35 must be eliminated for any particular year if the department
36 determines that no changes were made in the program that year.

1 Certification must then be automatically renewed.

2 3. Persons requesting recertification shall pay a \$25 fee
3 to the energy division of the department.

4 4. This recertification must occur annually, for the life
5 of the program.

6 C. Personnel from other states. Any person who is certified
7 to conduct residential conservation service audits in another
8 state is not required to take the training course established in
9 6 MCAR S 2.2507 B.1., but is required to pass the evaluator
10 certification examination.

11 6 MCAR S 2.2509 Decertification of evaluators.

12 A.-D. [Unchanged.]

13 E. Wrongful acts. Certification must be revoked when
14 reasonable evidence indicates an undisclosed conflict of
15 interest, a violation of these rules, unethical practices, or
16 negligent performance of duties as an evaluator. In any of
17 these instances, the department will, if requested, provide a
18 review to determine whether the revocation was proper. This
19 review must consist of the following procedures:

20 1. The evaluator shall make a written request for a
21 review to the department.

22 2. The director of the office of conservation shall
23 determine a time to review the request. The evaluator may
24 present testimony in person or in writing. The evaluator may
25 present witnesses on the evaluator's behalf. Department staff
26 may present written or oral testimony, as well as witnesses.

27 3. The director of the office of conservation shall make
28 a judgment based on the information presented in the review
29 hearing. That judgment shall be presented in writing to the
30 evaluator within three working days of the review.

31 F. Failure to report. Certification must be revoked if the
32 reports required in 6 MCAR S 2.2504 A. are not submitted to the
33 department as required.

34 6 MCAR S 2.2510 Calculation procedures.

35 The following procedures must be the basis for calculating

1 energy savings for each standard.

2 A. Energy conserving measures.

3 1.-3. [Unchanged.]

4 4. Furnace efficiency modifications.

5 a. Replacement furnaces or boilers.

6 Equation #3. $\Delta E = E_h \frac{1 - \frac{N_o}{N_1}}{\frac{N_o}{N_1}}$

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8

9 b.-d. [Unchanged.]

10 5.-21. [Unchanged.]

11 B. [Unchanged.]

12

13 Repealer. Rules of the Department of Administration, 2 MCAR SS

14 1.16220-1.16230 are repealed.