

112TH CONGRESS
2D SESSION

H. R. 6582

To allow for innovations and alternative technologies that meet or exceed desired energy efficiency goals, and to make technical corrections to existing Federal energy efficiency laws to allow American manufacturers to remain competitive.

IN THE HOUSE OF REPRESENTATIVES

NOVEMBER 2, 2012

Mr. ADERHOLT (for himself, Mr. CARNAHAN, Mrs. BLACKBURN, Mr. COOPER, Mr. ROE of Tennessee, Mr. WESTMORELAND, Mr. WHITFIELD, and Mr. SHIMKUS) introduced the following bill; which was referred to the Committee on Energy and Commerce

A BILL

To allow for innovations and alternative technologies that meet or exceed desired energy efficiency goals, and to make technical corrections to existing Federal energy efficiency laws to allow American manufacturers to remain competitive.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “American Energy Man-
5 ufacturing Technical Corrections Act”.

1 **SEC. 2. INNOVATIVE COMPONENT TECHNOLOGIES.**

2 Section 342(f) of the Energy Policy and Conservation
3 Act (42 U.S.C. 6313(f)) is amended—

4 (1) in paragraph (1), by striking “paragraphs
5 (2) through (5)” and inserting “paragraphs (2)
6 through (6)”; and

7 (2) by adding at the end the following new
8 paragraph:

9 “(6) INNOVATIVE COMPONENT TECH-
10 NOLOGIES.—Subparagraph (C) of paragraph (1)
11 shall not apply to a walk-in cooler or walk-in freezer
12 component if the component manufacturer has dem-
13 onstrated to the satisfaction of the Secretary that
14 the component reduces energy consumption at least
15 as much as if such subparagraph were to apply. In
16 support of any demonstration under this paragraph,
17 a manufacturer shall provide to the Secretary all
18 data and technical information necessary to fully
19 evaluate its application.”.

20 **SEC. 3. UNIFORM EFFICIENCY DESCRIPTOR FOR COVERED**
21 **WATER HEATERS.**

22 Section 325(e) of the Energy Policy and Conservation
23 Act (42 U.S.C. 6295(e)) is amended by adding at the end
24 the following:

25 “(5) UNIFORM EFFICIENCY DESCRIPTOR FOR
26 COVERED WATER HEATERS.—

1 “(A) DEFINITIONS.—In this paragraph:

2 “(i) COVERED WATER HEATER.—The
3 term ‘covered water heater’ means—

4 “(I) a water heater; and

5 “(II) a storage water heater, in-
6 stantaneous water heater, and unfired
7 water storage tank (as defined in sec-
8 tion 340).

9 “(ii) FINAL RULE.—The term ‘final
10 rule’ means the final rule published under
11 this paragraph.

12 “(B) PUBLICATION OF FINAL RULE.—Not
13 later than 180 days after the date of enactment
14 of this paragraph, the Secretary shall publish a
15 final rule that establishes a uniform efficiency
16 descriptor and accompanying test methods for
17 covered water heaters.

18 “(C) PURPOSE.—The purpose of the final
19 rule shall be to replace with a uniform effi-
20 ciency descriptor—

21 “(i) the energy factor descriptor for
22 water heaters established under this sub-
23 section; and

24 “(ii) the thermal efficiency and stand-
25 by loss descriptors for storage water heat-

1 ers, instantaneous water heaters, and
2 unfired water storage tanks established
3 under section 342(a)(5).

4 “(D) EFFECT OF FINAL RULE.—

5 “(i) IN GENERAL.—Notwithstanding
6 any other provision of this title, effective
7 beginning on the effective date of the final
8 rule, the efficiency standard for covered
9 water heaters shall be denominated accord-
10 ing to the efficiency descriptor established
11 by the final rule.

12 “(ii) EFFECTIVE DATE.—The final
13 rule shall take effect 1 year after the date
14 of publication of the final rule under sub-
15 paragraph (B).

16 “(E) CONVERSION FACTOR.—

17 “(i) IN GENERAL.—The Secretary
18 shall develop a mathematical conversion
19 factor for converting the measurement of
20 efficiency for covered water heaters from
21 the test procedures in effect on the date of
22 enactment of this paragraph to the new
23 energy descriptor established under the
24 final rule.

1 “(ii) APPLICATION.—The conversion
2 factor shall apply to models of covered
3 water heaters affected by the final rule and
4 tested prior to the effective date of the
5 final rule.

6 “(iii) EFFECT ON EFFICIENCY RE-
7 QUIREMENTS.—The conversion factor shall
8 not affect the minimum efficiency require-
9 ments for covered water heaters otherwise
10 established under this title.

11 “(iv) USE.—During the period de-
12 scribed in clause (v), a manufacturer may
13 apply the conversion factor established by
14 the Secretary to rerate existing models of
15 covered water heaters that are in existence
16 prior to the effective date of the rule de-
17 scribed in clause (v)(II) to comply with the
18 new efficiency descriptor.

19 “(v) PERIOD.—Subclause (E) shall
20 apply during the period—

21 “(I) beginning on the date of
22 publication of the conversion factor in
23 the Federal Register; and

24 “(II) ending on April 16, 2015.

1 “(F) EXCLUSIONS.—The final rule may
2 exclude a specific category of covered water
3 heaters from the uniform efficiency descriptor
4 established under this paragraph if the Sec-
5 retary determines that the category of water
6 heaters—

7 “(i) does not have a residential use
8 and can be clearly described in the final
9 rule; and

10 “(ii) are effectively rated using the
11 thermal efficiency and standby loss
12 descriptors applied (as of the date of en-
13 actment of this paragraph) to the category
14 under section 342(a)(5).

15 “(G) OPTIONS.—The descriptor set by the
16 final rule may be—

17 “(i) a revised version of the energy
18 factor descriptor in use as of the date of
19 enactment of this paragraph;

20 “(ii) the thermal efficiency and stand-
21 by loss descriptors in use as of that date;

22 “(iii) a revised version of the thermal
23 efficiency and standby loss descriptors;

24 “(iv) a hybrid of descriptors; or

25 “(v) a new approach.

1 “(H) APPLICATION.—The efficiency
2 descriptor and accompanying test method estab-
3 lished under the final rule shall apply, to the
4 maximum extent practicable, to all water heat-
5 ing technologies in use as of the date of enact-
6 ment of this paragraph and to future water
7 heating technologies.

8 “(I) PARTICIPATION.—The Secretary shall
9 invite interested stakeholders to participate in
10 the rulemaking process used to establish the
11 final rule.

12 “(J) TESTING OF ALTERNATIVE
13 DESCRIPTORS.—In establishing the final rule,
14 the Secretary shall contract with the National
15 Institute of Standards and Technology, as nec-
16 essary, to conduct testing and simulation of al-
17 ternative descriptors identified for consider-
18 ation.

19 “(K) EXISTING COVERED WATER HEAT-
20 ERS.—A covered water heater shall be consid-
21 ered to comply with the final rule on and after
22 the effective date of the final rule and with any
23 revised labeling requirements established by the
24 Federal Trade Commission to carry out the
25 final rule if the covered water heater—

1 “(i) was manufactured prior to the ef-
2 fective date of the final rule; and

3 “(ii) complied with the efficiency
4 standards and labeling requirements in ef-
5 fect prior to the final rule.”.

6 **SEC. 4. SERVICE OVER THE COUNTER, SELF-CONTAINED,**
7 **MEDIUM TEMPERATURE COMMERCIAL RE-**
8 **FRIGERATORS.**

9 Section 342(c) of the Energy Policy and Conservation
10 Act (42 U.S.C. 6313(c)) is amended—

11 (1) in paragraph (1)—

12 (A) by redesignating subparagraph (C) as
13 subparagraph (E); and

14 (B) by inserting after subparagraph (B)
15 the following:

16 “(C) The term ‘service over the counter,
17 self-contained, medium temperature commercial
18 refrigerator’ or ‘(SOC–SC–M)’ means a me-
19 dium temperature commercial refrigerator—

20 “(i) with a self-contained condensing
21 unit and equipped with sliding or hinged
22 doors in the back intended for use by sales
23 personnel, and with glass or other trans-
24 parent material in the front for displaying
25 merchandise; and

1 “(ii) that has a height not greater
2 than 66 inches and is intended to serve as
3 a counter for transactions between sales
4 personnel and customers.

5 “(D) The term ‘TDA’ means the total dis-
6 play area (ft²) of the refrigerated case, as de-
7 fined in AHRI Standard 1200.”;

8 (2) by redesignating paragraphs (4) and (5) as
9 paragraphs (5) and (6), respectively; and
10 (3) by inserting after paragraph (3) the fol-
11 lowing:

12 “(4) Each SOC–SC–M manufactured on or
13 after January 1, 2012, shall have a total daily en-
14 ergy consumption (in kilowatt hours per day) of not
15 more than $0.6 \times \text{TDA} + 1.0$.”.

16 **SEC. 5. SMALL DUCT HIGH VELOCITY SYSTEMS AND ADMIN-**
17 **ISTRATIVE CHANGES.**

18 (a) THROUGH-THE-WALL CENTRAL AIR CONDI-
19 TIONERS, THROUGH-THE-WALL CENTRAL AIR CONDI-
20 TIONING HEAT PUMPS, AND SMALL DUCT, HIGH VELOC-
21 ITY SYSTEMS.—Section 325(d) of the Energy Policy and
22 Conservation Act (42 U.S.C. 6295(d)) is amended by add-
23 ing at the end the following:

24 “(4) STANDARDS FOR THROUGH-THE-WALL
25 CENTRAL AIR CONDITIONERS, THROUGH-THE-WALL

1 CENTRAL AIR CONDITIONING HEAT PUMPS, AND
2 SMALL DUCT, HIGH VELOCITY SYSTEMS.—

3 “(A) DEFINITIONS.—In this paragraph:

4 “(i) SMALL DUCT, HIGH VELOCITY
5 SYSTEM.—The term ‘small duct, high ve-
6 locity system’ means a heating and cooling
7 product that contains a blower and indoor
8 coil combination that—

9 “(I) is designed for, and pro-
10 duces, at least 1.2 inches of external
11 static pressure when operated at the
12 certified air volume rate of 220–350
13 CFM per rated ton of cooling; and

14 “(II) when applied in the field,
15 uses high velocity room outlets gen-
16 erally greater than 1,000 fpm that
17 have less than 6.0 square inches of
18 free area.

19 “(ii) THROUGH-THE-WALL CENTRAL
20 AIR CONDITIONER; THROUGH-THE-WALL
21 CENTRAL AIR CONDITIONING HEAT
22 PUMP.—The terms ‘through-the-wall cen-
23 tral air conditioner’ and ‘through-the-wall
24 central air conditioning heat pump’ mean a
25 central air conditioner or heat pump, re-

1 spectively, that is designed to be installed
2 totally or partially within a fixed-size open-
3 ing in an exterior wall, and—

4 “(I) is not weatherized;

5 “(II) is clearly and permanently
6 marked for installation only through
7 an exterior wall;

8 “(III) has a rated cooling capac-
9 ity no greater than 30,000 Btu/hr;

10 “(IV) exchanges all of its outdoor
11 air across a single surface of the
12 equipment cabinet; and

13 “(V) has a combined outdoor air
14 exchange area of less than 800 square
15 inches (split systems) or less than
16 1,210 square inches (single packaged
17 systems) as measured on the surface
18 area described in subclause (IV).

19 “(iii) REVISION.—The Secretary may
20 revise the definitions contained in this sub-
21 paragraph through publication of a final
22 rule.

23 “(B) SMALL-DUCT HIGH-VELOCITY SYS-
24 TEMS.—

1 “(i) SEASONAL ENERGY EFFICIENCY
2 RATIO.—The seasonal energy efficiency
3 ratio for small-duct high-velocity systems
4 shall be not less than—

5 “(I) 11.00 for products manufac-
6 tured on or after January 23, 2006;
7 and

8 “(II) 12.00 for products manu-
9 factured on or after January 1, 2015.

10 “(ii) HEATING SEASONAL PERFORM-
11 ANCE FACTOR.—The heating seasonal per-
12 formance factor for small-duct high-veloc-
13 ity systems shall be not less than—

14 “(I) 6.8 for products manufac-
15 tured on or after January 23, 2006;
16 and

17 “(II) 7.2 for products manufac-
18 tured on or after January 1, 2015.

19 “(C) SUBSEQUENT RULEMAKINGS.—The
20 Secretary shall conduct subsequent rulemakings
21 for through-the-wall central air conditioners,
22 through-the-wall central air conditioning heat
23 pumps, and small duct, high velocity systems as
24 part of any rulemaking under this section used

1 to review or revise standards for other central
2 air conditioners and heat pumps.”.

3 (b) DUTY TO REVIEW COMMERCIAL EQUIPMENT.—

4 Section 342(a)(6) of the Energy Policy and Conservation
5 Act (42 U.S.C. 6313(a)(6)) is amended—

6 (1) in subparagraph (A)(i), by inserting “the
7 standard levels or design requirements applicable
8 under that standard to” immediately before “any
9 small commercial”; and

10 (2) in subparagraph (C)—

11 (A) in clause (i)—

12 (i) by striking “Not later than 6 years
13 after issuance of any final rule establishing
14 or amending a standard, as required for a
15 product under this part,” and inserting
16 “Every 6 years,”; and

17 (ii) by inserting after “the Secretary
18 shall” the following: “conduct an evalua-
19 tion of each class of covered equipment
20 and shall”; and

21 (B) by adding at the end the following:

22 “(vi) For any covered equipment as to
23 which more than 6 years has elapsed since
24 the issuance of the most recent final rule
25 establishing or amending a standard for

1 the product as of the date of enactment of
2 this clause, the first notice required under
3 clause (i) shall be published by December
4 31, 2013.”.

5 (c) PETITION FOR AMENDED STANDARDS.—Section
6 325(n) of the Energy Policy and Conservation Act (42
7 U.S.C. 6295(n)) is amended—

8 (1) by redesignating paragraph (3) as para-
9 graph (5); and

10 (2) by inserting after paragraph (2) the fol-
11 lowing:

12 “(3) NOTICE OF DECISION.—Not later than
13 180 days after the date of receiving a petition, the
14 Secretary shall publish in the Federal Register a no-
15 tice of, and explanation for, the decision of the Sec-
16 retary to grant or deny the petition.

17 “(4) NEW OR AMENDED STANDARDS.—Not
18 later than 3 years after the date of granting a peti-
19 tion for new or amended standards, the Secretary
20 shall publish in the Federal Register—

21 “(A) a final rule that contains the new or
22 amended standards; or

23 “(B) a determination that no new or
24 amended standards are necessary.”.

1 **SEC. 6. TECHNICAL CORRECTIONS.**

2 (a) TITLE III OF ENERGY INDEPENDENCE AND SE-
3 CURITY ACT OF 2007—ENERGY SAVINGS THROUGH IM-
4 PROVED STANDARDS FOR APPLIANCES AND LIGHTING.—

5 (1) Section 325(u) of the Energy Policy and
6 Conservation Act (42 U.S.C. 6295(u)) (as amended
7 by section 301(c) of the Energy Independence and
8 Security Act of 2007 (121 Stat. 1550)) is amend-
9 ed—

10 (A) by redesignating paragraph (7) as
11 paragraph (4); and

12 (B) in paragraph (4) (as so redesignated),
13 by striking “supplies is” and inserting “supply
14 is”.

15 (2) Section 302(b) of the Energy Independence
16 and Security Act of 2007 (121 Stat. 1551) is
17 amended by striking “6313(a)” and inserting
18 “6314(a)”.

19 (3) Section 342(a)(6) of the Energy Policy and
20 Conservation Act (42 U.S.C. 6313(a)(6)) (as amend-
21 ed by section 305(b)(2) of the Energy Independence
22 and Security Act of 2007 (121 Stat. 1554)) is
23 amended—

24 (A) in subparagraph (B)—

25 (i) by striking “If the Secretary” and
26 inserting the following:

1 “(i) IN GENERAL.—If the Secretary”;

2 (ii) by striking “clause (ii)(II)” and

3 inserting “subparagraph (A)(ii)(II)”;

4 (iii) by striking “clause (i)” and in-

5 serting “subparagraph (A)(i)”;

6 (iv) by adding at the end the fol-

7 lowing:

8 “(ii) FACTORS.—In determining

9 whether a standard is economically justi-

10 fied for the purposes of subparagraph

11 (A)(ii)(II), the Secretary shall, after receiv-

12 ing views and comments furnished with re-

13 spect to the proposed standard, determine

14 whether the benefits of the standard ex-

15 ceed the burden of the proposed standard

16 by, to the maximum extent practicable,

17 considering—

18 “(I) the economic impact of the

19 standard on the manufacturers and

20 on the consumers of the products sub-

21 ject to the standard;

22 “(II) the savings in operating

23 costs throughout the estimated aver-

24 age life of the product in the type (or

25 class) compared to any increase in the

1 price of, or in the initial charges for,
2 or maintenance expenses of, the prod-
3 ucts that are likely to result from the
4 imposition of the standard;

5 “(III) the total projected quan-
6 tity of energy savings likely to result
7 directly from the imposition of the
8 standard;

9 “(IV) any lessening of the utility
10 or the performance of the products
11 likely to result from the imposition of
12 the standard;

13 “(V) the impact of any lessening
14 of competition, as determined in writ-
15 ing by the Attorney General, that is
16 likely to result from the imposition of
17 the standard;

18 “(VI) the need for national en-
19 ergy conservation; and

20 “(VII) other factors the Sec-
21 retary considers relevant.

22 “(iii) ADMINISTRATION.—

23 “(I) ENERGY USE AND EFFI-
24 CIENCY.—The Secretary may not pre-
25 scribe any amended standard under

1 this paragraph that increases the
2 maximum allowable energy use, or de-
3 creases the minimum required energy
4 efficiency, of a covered product.

5 “(II) UNAVAILABILITY.—

6 “(aa) IN GENERAL.—The
7 Secretary may not prescribe an
8 amended standard under this
9 subparagraph if the Secretary
10 finds (and publishes the finding)
11 that interested persons have es-
12 tablished by a preponderance of
13 the evidence that a standard is
14 likely to result in the unavail-
15 ability in the United States in
16 any product type (or class) of
17 performance characteristics (in-
18 cluding reliability, features, sizes,
19 capacities, and volumes) that are
20 substantially the same as those
21 generally available in the United
22 States at the time of the finding
23 of the Secretary.

24 “(bb) OTHER TYPES OR
25 CLASSES.—The failure of some

1 types (or classes) to meet the cri-
2 terion established under this sub-
3 clause shall not affect the deter-
4 mination of the Secretary on
5 whether to prescribe a standard
6 for the other types or classes.”;
7 and

8 (B) in subparagraph (C)(iv), by striking
9 “An amendment prescribed under this sub-
10 section” and inserting “Notwithstanding sub-
11 paragraph (D), an amendment prescribed under
12 this subparagraph”.

13 (4) Section 342(a)(6)(B)(iii) of the Energy Pol-
14 icy and Conservation Act (as added by section
15 306(c) of the Energy Independence and Security Act
16 of 2007 (121 Stat. 1559)) is transferred and reded-
17 icated as clause (vi) of section 342(a)(6)(C) of the
18 Energy Policy and Conservation Act (as amended by
19 section 305(b)(2) of the Energy Independence and
20 Security Act of 2007 (121 Stat. 1554)).

21 (5) Section 345 of the Energy Policy and Con-
22 servation Act (42 U.S.C. 6316) (as amended by sec-
23 tion 312(e) of the Energy Independence and Secu-
24 rity Act of 2007 (121 Stat. 1567)) is amended—

1 (A) by striking “subparagraphs (B)
2 through (G)” each place it appears and insert-
3 ing “subparagraphs (B), (C), (D), (I), (J), and
4 (K)”;

5 (B) by striking “part A” each place it ap-
6 pears and inserting “part B”;

7 (C) in subsection (a)—

8 (i) in paragraph (8), by striking
9 “and” at the end;

10 (ii) in paragraph (9), by striking the
11 period at the end and inserting “; and”;
12 and

13 (iii) by adding at the end the fol-
14 lowing:

15 “(10) section 327 shall apply with respect to
16 the equipment described in section 340(1)(L) begin-
17 ning on the date on which a final rule establishing
18 an energy conservation standard is issued by the
19 Secretary, except that any State or local standard
20 prescribed or enacted for the equipment before the
21 date on which the final rule is issued shall not be
22 preempted until the energy conservation standard
23 established by the Secretary for the equipment takes
24 effect.”;

1 (D) in subsection (b)(1), by striking “sec-
2 tion 325(p)(5)” and inserting “section
3 325(p)(4)”; and

4 (E) in subsection (h)(3), by striking “sec-
5 tion 342(f)(3)” and inserting “section
6 342(f)(4)”.

7 (6) Section 321(30)(D)(i)(III) of the Energy
8 Policy and Conservation Act (42 U.S.C.
9 6291(30)(D)(i)(III)) (as amended by section
10 321(a)(1)(A) of the Energy Independence and Secu-
11 rity Act of 2007 (121 Stat. 1574)) is amended by
12 inserting before the semicolon the following: “or, in
13 the case of a modified spectrum lamp, not less than
14 232 lumens and not more than 1,950 lumens”.

15 (7) Section 321(30)(T) of the Energy Policy
16 and Conservation Act (42 U.S.C. 6291(30)(T)) (as
17 amended by section 321(a)(1)(B) of the Energy
18 Independence and Security Act of 2007 (121 Stat.
19 1574)) is amended—

20 (A) in clause (i)—

21 (i) by striking the comma after
22 “household appliance” and inserting
23 “and”; and

24 (ii) by striking “and is sold at retail,”;
25 and

1 (B) in clause (ii), by inserting “when sold
2 at retail,” before “is designated”.

3 (8) Section 325(l)(4)(A) of the Energy Policy
4 and Conservation Act (42 U.S.C. 6295(l)(4)(A)) (as
5 amended by section 321(a)(3)(B) of the Energy
6 Independence and Security Act of 2007 (121 Stat.
7 1581)) is amended by striking “only”.

8 (9) Section 327(b)(1)(B) of the Energy Policy
9 and Conservation Act (42 U.S.C. 6297(b)(1)(B)) (as
10 amended by section 321(d)(3) of the Energy Inde-
11 pendence and Security Act of 2007 (121 Stat.
12 1585)) is amended—

13 (A) in clause (i), by inserting “and” after
14 the semicolon at the end;

15 (B) in clause (ii), by striking “; and” and
16 inserting a period; and

17 (C) by striking clause (iii).

18 (10) Section 321(30)(C)(ii) of the Energy Pol-
19 icy and Conservation Act (42 U.S.C.
20 6291(30)(C)(ii)) (as amended by section
21 322(a)(1)(B) of the Energy Independence and Secu-
22 rity Act of 2007 (121 Stat. 1587)) is amended by
23 inserting a period after “40 watts or higher”.

24 (11) Section 322(b) of the Energy Independ-
25 ence and Security Act of 2007 (121 Stat. 1588) is

1 amended by striking “6995(i)” and inserting
2 “6295(i)”.

3 (12) Section 325(b) of the Energy Independ-
4 ence and Security Act of 2007 (121 Stat. 1596) is
5 amended by striking “6924(c)” and inserting
6 “6294(c)”.

7 (13) This subsection and the amendments made
8 by this subsection take effect as if included in the
9 Energy Independence and Security Act of 2007
10 (Public Law 110–140; 121 Stat. 1492).

11 (b) ENERGY POLICY ACT OF 2005.—

12 (1) Section 325(g)(8)(C)(ii) of the Energy Pol-
13 icy and Conservation Act (42 U.S.C.
14 6295(g)(8)(C)(ii)) (as added by section 135(c)(2)(B)
15 of the Energy Policy Act of 2005) is amended by
16 striking “20F” and inserting “20°F”.

17 (2) This subsection and the amendment made
18 by this subsection take effect as if included in the
19 Energy Policy Act of 2005 (Public Law 109–58; 119
20 Stat. 594).

21 (c) ENERGY POLICY AND CONSERVATION ACT.—

22 (1) Section 340(2)(B) of the Energy Policy and
23 Conservation Act (42 U.S.C. 6311(2)(B)) is amend-
24 ed—

1 (A) in clause (xi), by striking “and” at the
2 end;

3 (B) in clause (xii), by striking the period
4 at the end and inserting “; and”; and

5 (C) by adding at the end the following:

6 “(xiii) other motors.”.

7 (2) Section 343(a) of the Energy Policy and
8 Conservation Act (42 U.S.C. 6314(a)) is amended
9 by striking “Air-Conditioning and Refrigeration In-
10 stitute” each place it appears in paragraphs (4)(A)
11 and (7) and inserting “Air-Conditioning, Heating,
12 and Refrigeration Institute”.

○