due to quarantine, boycott, or refusal of any person to accept production.

11. Duties in the Event of Damage or Loss.

In addition to the requirements of section 14 of the Basic Provisions, the following will apply:

* * * * *

(c) If the crop has been damaged during the growing season and you previously gave notice in accordance with section 14 of the Basic Provisions, you must also provide notice at least 15 days prior to the beginning of harvest if you intend to claim an indemnity as a result of the damage previously reported. You must not destroy the damaged crop until the earlier of 15 days from the date you gave notice of loss, or our written consent to do so. If you fail to meet requirements of this section all such production will be considered undamaged and included as production to count.

* * * * *

12. Settlement of Claim.

* * * * *

(b) * * *

(2) Multiplying each result in section 12(b)(1) by the respective price election you selected for each type or variety;

* * * * *

(4) Multiplying the total production to count of each type or variety, if applicable, (see section 12(c)) by the respective price election you selected;

* * * * *

(c) * * *

(1) * * *

(iii) Unharvested production that meets, or would meet if properly handled, the state quality standards, if specified in the Special Provisions, or the appropriate USDA grade standard (if no state standard is specified); and

* * * * *

Signed in Washington, DC, on June 24, 2009.

William J. Murphy,

Acting Manager, Federal Crop Insurance Corporation.

[FR Doc. E9–15498 Filed 7–6–09; 8:45 am]

BILLING CODE 3410–08–P

DEPARTMENT OF ENERGY

10 CFR Part 431

[Docket No. EERE–2008–BT–TP–0008]

RIN 1904–AB71

Energy Conservation Program: Test Procedures for Small Electric Motors

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Final rule.

SUMMARY: The Department of Energy (DOE) is prescribing test procedures for measuring the energy efficiency of single-phase and polyphase small electric motors. The final rule incorporates by reference industry test procedures already in use when measuring the energy efficiency of these types of motors. Additionally, the final rule clarifies definitions applying to small electric motors and identifies issues that will be further addressed later in a related supplemental notice.

DATES: This rule is effective August 6, 2009. The incorporation by reference of certain publications listed in this rule was approved by the Director of the Federal Register on August 6, 2009.

ADDRESSES: You may review copies of all materials related to this rulemaking at the U.S. Department of Energy, Resource Room of the Building Technologies Program, 950 L'Enfant Plaza, SW., Suite 600, Washington, DC, (202) 586–2945, between 9 a.m. and 4 p.m., Monday through Friday, except Federal holidays. Please call Ms. Brenda Edwards at the above telephone number for additional information regarding visiting the Resource Room. Please note that the DOE's Freedom of Information Reading Room no longer houses rulemaking materials.

FOR FURTHER INFORMATION CONTACT: Mr. James Raba, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Program, EE–2J, 1000 Independence Avenue, SW., Washington, DC 20585–0121. Telephone: (202) 586–8654. E-mail: *Jim.Raba@ee.doe.gov.* In the Office of the General Counsel, contact Mr. Michael Kido, U.S. Department of Energy, Office of the General Counsel, GC–72, 1000 Independence Avenue, SW., Washington, DC 20585. Telephone: (202) 586–9507. E-mail: *Michael.Kido@hq.doe.gov.*

SUPPLEMENTARY INFORMATION: Today's final rule incorporates by reference, into subpart X of Title 10, Code of Federal Regulations, part 431 (10 CFR part 431),[1] the following industry standards from the Canadian Standards Association and the Institute of Electrical and Electronics Engineers:

- CAN/CSA–C747–94 (Reaffirmed 2005), (''CAN/CSA–C747''), Energy Efficiency Test Methods for Single- and Three-Phase Small Motors.
- IEEE Std 114–2001™ (Revision of IEEE Std 114–1982™), (''IEEE Std 114''), ''IEEE Standard Test Procedure for Single-Phase Induction Motors,'' approved December 6, 2001.
- IEEE Std 112™–2004 (Revision of IEEE Std 112–1996), (''IEEE Std 112''), ''IEEE Standard Test Procedure for Polyphase Induction Motors and Generators,'' approved February 9, 2004.

Copies of CAN/CSA–C747 can be obtained from the Canadian Standards Association, Sales Department, 5060 Spectrum Way, Suite 100, Mississauga, Ontario, L4W 5N6, Canada, 1–800–463–6727, or *http://www.shopcsa.ca/onlinestore/welcome.asp.*

Copies of IEEE Std 112 and 114 can be obtained from the Institute of Electrical and Electronics Engineers, Inc., 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855–1331, 1–800–678–IEEE (4333), or *http://www.ieee.org/web/publications/home/index.html.*

You can also view copies of these standards at the U.S. Department of Energy, Resource Room of the Building Technologies Program, 950 L'Enfant Plaza, SW., 6th Floor, Washington, DC 20024, (202) 586–2945, between 9 a.m. and 4 p.m., Monday through Friday, except Federal holidays.

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[1] The December 22, 2008, notice of proposed rulemaking that addressed test procedures for measuring the energy efficiency of small electric motors proposed in section III.A of the preamble a new ''Subpart T—Small Electric Motors,'' under 10 CFR part 431. 73 FR 78220, 78237. Subsequent to that notice, DOE became aware that ''Subpart T'' had been used in an earlier rulemaking for certification, compliance, and enforcement requirements for consumer products and commercial equipment. 71 FR 42178, 42214 (July 25, 2006). Consequently, today's final rule reformats ''Subpart T'' to read ''Subpart X'' and renumbers the ''431.340'' series to read ''431.440.'' Notwithstanding, certain passages, comments, and references that follow make reference to ''Subpart T'' because that language was used in the NOPR. This is addressed further in section III.E of the preamble that follows.

I. Introduction

A. Authority

Part A–1 of Title III of the Energy Policy and Conservation Act, as amended, (EPCA) provides for an energy conservation program for certain commercial and industrial equipment.[2] (42 U.S.C. 6311–6317) In particular, section 346(b)(1) of EPCA directs the Secretary of Energy to prescribe testing requirements and energy conservation standards for those small electric motors for which the Secretary determines that standards would be technologically feasible and economically justified, and would result in significant energy savings. (42 U.S.C. 6317(b)(1))

B. Background

On July 10, 2006, the Department of Energy (DOE) published in the **Federal Register** a positive determination that energy conservation standards for certain single-phase and polyphase small electric motors appear technologically feasible, economically justified and would result in significant energy savings.[3] 71 FR 38799. Further, DOE stated in its determination notice that it will initiate the development of test procedures for certain small electric motors. 71 FR 38807. DOE then published proposed test procedures and requested comment on those procedures. 73 FR 78220 (December 22, 2008). Today's final rule prescribes test procedures for measuring the energy efficiency of certain small electric motors with ratings of ¼ to 3 horsepower (hp), which are built in a two-digit National Electrical Manufacturers Association (NEMA) frame number series. Although both could have the same horsepower ratings, small electric motors, which are covered in today's final rule, differ from electric motors, which are built in a three-digit NEMA frame number series and have other differentiating features and performance characteristics. This test procedure is also applicable to NEMA-equivalent International Electrotechnical Commission (IEC) standard motors (metric motors), which are equivalent to small electric motors, as defined in EPCA (*see* section III.A.1 in today's final rule). *See* 42 U.S.C. 6311(13)(G).

In the notice of proposed rulemaking (NOPR), DOE proposed to (1) establish test procedures to measure the energy efficiency for small electric motors and (2) amend the test procedures for electric motors (*i.e.* 1–200 hp) by revising and expanding their current scope and to extend coverage of those procedures to include electric motors with ratings between 201 and 500 hp. 73 FR 78220. These proposed changes would amend the regulations currently found at 10 CFR part 431. DOE identified several issues in the NOPR on which it sought public comment. For small electric motors, DOE specifically sought comments on three issues: (1) The proposed test procedure for small electric motors, based on the Institute of Electrical and Electronics Engineers (IEEE) Std 114–2001, ''Test Procedure for Single-Phase Induction Motors,'' and IEEE Std 112–2004, ''Test Procedure for Polyphase Induction Motors and Generators;'' (2) the proposal to allow manufacturers to use Canadian Standards Association (CAN/CSA) C747–94, ''Energy Efficiency Test Methods for Single- and Three-Phase Small Motors,'' as an alternative to IEEE Std 114 and 112; and (3) the proposal to use an alternative efficiency determination method (AEDM) as a means for calculating the total power loss and average full load efficiency of a small electric motor.[4] With respect to this last item, DOE discussed proposed requirements for a manufacturer to substantiate: (i) The accuracy and reliability of its AEDM, (ii) a statistically valid number of basic models and units to be tested, and (iii) the accuracy of the predictive capabilities of the AEDM relative to actual testing.

On January 29, 2009, DOE held a public meeting to receive comments, data, and information on its NOPR. On March 9, 2009, the NOPR comment period closed. In addition to the oral comments presented at the public meeting and recorded in the official transcript, DOE received three additional written comments. In view of the comments received, DOE subsequently decided to separate the two major rulemaking activities originally contained in the NOPR—one to address the test procedure for small electric motors, and the other to address the revision and expansion of the test procedure for electric motors found in subpart B of 10 CFR part 431.[5] The issues relevant to the small electric motors test procedure are addressed in today's final rule. Issues affecting electric motors will be addressed in a separate supplemental notice of proposed rulemaking (SNOPR), which DOE will publish at a later date.

II. Summary of the Final Rule

Today's final rule establishes new test procedures for measuring the energy efficiency of certain general purpose, single-phase and polyphase small electric motors built in a two-digit NEMA frame series. The test procedures incorporate by reference IEEE Std 112 (Test Method A and Test Method B), IEEE Std 114, and CAN/CSA C747 for single-phase small electric motors.

Also, today's final rule does the following: (1) Codifies the statutory definition for the term ''small electric motor;'' (2) clarifies the definition of the term ''basic model'' and the relationship of the term to certain equipment classes and compliance certification reporting requirements; and (3) codifies the ability of manufacturers to use an AEDM to reduce testing burden while maintaining accuracy and ensuring compliance with potential future energy conservation standards. Finally, today's notice also discusses matters of

[2] For editorial reasons, Parts B (consumer products) and C (commercial equipment) of Title III of EPCA were redesignated as Parts A and A–1, respectively, in the United States Code.

[3] A small electric motor is a machine that converts electric power (either single-phase or polyphase alternating current) into rotational mechanical power. Single-phase electric power varies all the voltages of the supply in unison, while a polyphase (three-phase) system has three alternating currents offset from one another by one-third of their period, or 120 degrees. *See* 73 FR 78221.

[4] The IEEE Standards addressed in this notice are generally listed chronologically by their last date of revision and adoption rather than their sequential number.

[5] DOE is addressing the small motors test procedure issues in today's notice to ensure its compliance with the Consent Decree deadline established by Federal District Court for the Southern District of New York on November 6, 2006 in the consolidated cases of *New York* v. *Bodman,* Case No. 05 Civ. 7807 (JES), and *Natural Resources Defense Council* v. *Bodman,* Case No. 05 Civ. 7808 (JES). Unlike the test procedures for small electric motors, the test procedure rulemaking for electric motors (i.e. 1–200 hp) is not part of the Consent Decree schedule.

laboratory accreditation, compliance certification, and enforcement for small electric motors.

III. Discussion

Small electric motors covered in today's final rule are general purpose rotating machines that use either single-phase or polyphase electricity, and provide sufficient torque to drive equipment such as blowers, fans, conveyors, and pumps. Today's final rule does not cover small electric motors that are components of a covered product under section 322(a) of EPCA. (42 U.S.C. 6317(b)(3)) For example, a small electric motor that is a component of a covered consumer appliance, such as a refrigerator, is not covered in today's final rule. The following discussion provides some background for today's final rule.

On July 10, 2006, DOE published in the **Federal Register** a positive determination with respect to testing requirements and energy conservation standards for small electric motors. DOE preliminarily determined that standards for small electric motors would be ''technologically feasible and economically justified, and would result in significant energy savings.'' 71 FR 38807. Thereafter, DOE began to develop a test procedure for small electric motors and an analysis of potential energy conservation standards levels. As part of this analysis, DOE prepared a framework document that described the standards rulemaking process and provided details regarding the procedural and analytical approaches DOE anticipated using to evaluate energy conservation standards for small electric motors. *See* generally, Energy Conservation Standards Rulemaking Framework Document for Small Electric Motors, at pp. 9–33 (July 30, 2007) (available at *http://www1.eere.energy.gov/buildings/appliance_standards/commercial/pdfs/small_motors_framework_073007.pdf*).

On August 10, 2007, DOE published a **Federal Register** notice that initiated a rulemaking addressing energy conservation standards for small electric motors and announced both the availability of the framework document and a public meeting to discuss and receive comments, data, and information about issues DOE would address in the energy conservation standards rulemaking. 72 FR 44990. NEMA responded to the notice by pointing out that its members use IEEE Std 112 for measuring the efficiency of polyphase small electric motors and IEEE Std 114 for measuring the efficiency of single-phase small electric motors. (NEMA, No. 2 at p. 2) [6] DOE examined these industry standards as well as CAN/CSA–C747, and concluded that these test procedures provide the necessary methodology and technical requirements to accurately determine the energy efficiency of the small electric motors covered in its rulemaking.

On December 22, 2008, DOE published a NOPR that, in part, proposed to create new Subpart T, ''Small Electric Motors,'' (now Subpart X) in 10 CFR part 431, to set forth definitions and prescribe test procedures for small electric motors. 73 FR 78220. In particular, the NOPR invited interested parties to submit comments, data, and information on the proposed test methods for small electric motors (IEEE Std 112 and IEEE Std 114) and whether CAN/CSA C747 could be used as an alternative test method to the IEEE standards for the same equipment. DOE held a public meeting on January 29, 2009, to address, in part, its proposed test procedures for small electric motors and solicit comments from interested parties. In addition to oral comments recorded in the transcript from the public meeting, DOE received three sets of written comments, all of which are addressed in today's rulemaking.

A. Definition of Small Electric Motor

In the NOPR, DOE proposed to codify the statutory definition of ''small electric motor'' into ''Subpart T—Small Electric Motors'' of 10 CFR part 431. 73 FR 78223. Section 340(13)(G) of EPCA, as amended by the Energy Independence and Security Act of 2007 (EISA 2007) (42 U.S.C. 6311(13)(G)), defines the term ''small electric motor'' as ''a NEMA general purpose alternating-current single-speed induction motor, built in a two-digit frame number series in accordance with NEMA Standards Publication MG1–1987.'' In today's final rule, DOE is codifying this definition under 10 CFR 431.442 of a new Subpart X for small electric motors.

Interested parties raised two general issues that are addressed in this section: (1) Whether DOE considers NEMA-equivalent IEC standard motors (metric motors) to be covered under 10 CFR part 431; and (2) whether in paragraph MG1–1.05 of NEMA Standards Publication MG1–1987 the classification of insulation system prescribed for small motors is a potential means to circumvent the applicable compliance requirements in 10 CFR part 431.

1. International Electrotechnical Commission Motors

As discussed above, EPCA defines ''small electric motor'' on the basis of NEMA Standards Publication MG1–1987, ''Motors and Generators.'' Section 340(13)(G) of EPCA, 42 U.S.C. 6311(13)(G). The elements that comprise the EPCA definition of ''small electric motor'' are based on the construction and rating system in paragraph MG1–1.05 of NEMA MG1–1987, which use U.S. customary units of measurement, rather than metric units. Today's codified definition describes general-purpose small electric motors in terms that are used in common parlance for the U.S. market.

By contrast, general-purpose small electric motors manufactured outside the U.S. and Canada generally are defined and described in terms of IEC Standards. For example, IEC 60034-series, ''Rotating Electrical Machines,'' sets forth terminology and performance criteria that are different from those in the EPCA definition of small electric motor. Further, ''IEC motors'' are rated under IEC 60034–1, ''Rating and Performance,'' which uses metric units of measurement and a construction and rating system different from NEMA MG1–1987. For example, where NEMA standards rate the output power of small electric motors in terms of horsepower, IEC standards rate the input power of (equivalent) small electric motors in terms of kilowatts.

Baldor Electric Company (Baldor), Northwest Energy Efficiency Alliance (NEEA), and NEMA commented that IEC motors of equivalent ratings should be considered covered equipment. Baldor asserted that IEC motors should be covered because it is possible for foreign IEC motors to be brought into the United States and used in the same applications as EPCA-defined small electric motors. (Baldor, Public Meeting Transcript, No. 8 at p. 75). NEEA[7] noted that the test procedures and any energy conservation standards for small electric

[6] A notation in the form ''NEMA, No. 2 at p. 2'' refers to (1) a statement that was submitted by the National Electrical Manufacturers Association and is recorded in the docket ''Energy Conservation Program: Test Procedures for Electric Motors,'' Docket Number EERE–2008–BT–TP–0008, as comment number 2; and (2) a passage that appears on page 2 of that document. Likewise, a notation in the form ''Baldor, Public Meeting Transcript, No. 8 at p. 75'' refers to (1) a statement by Baldor Electric Company and is recorded in the docket as comment number 8; and (2) a passage that appears on page 75 of the transcript, ''Public Meeting on Test Procedures for Small Electric Motors and Electric Motors,'' dated January 29, 2009.

[7] This comment was made by Adjuvant Consulting, which represented both the Northwest Energy Efficiency Alliance (NEEA) and the Northwest Power and Conservation Council. For referencing purposes, throughout this notice, comments from these groups will be cited as NEEA.

motors should apply to the equivalent IEC motors. (NEEA, Public Meeting Transcript, No. 8 at pp. 81–82). NEEA also submitted a written comment stating its shared concerns with manufacturers about DOE's ability to enforce efficiency standards in cases involving covered products arriving from overseas as components of OEM equipment, including compatibility with IEC-based testing and rating. NEEA urges DOE to work with manufacturers and other interested parties to develop a plan that does not place an asymmetric burden on U.S. manufacturers in providing for reasonable enforcement of the standards. (NEEA, No. 10 at p. 6) NEMA commented that when DOE codified the provisions for electric motors into subpart B of 10 CFR part 431 pursuant to the Energy Policy Act of 1992 (EPACT 1992), DOE recognized that IEC motors equivalent to (and used as substitutes for) NEMA ''electric motors'' should be considered covered products. Consistent with that interpretation, NEMA requested that DOE include equivalent IEC motors in the definition of ''small electric motor.'' (NEMA, No. 12 at p. 2) Interested parties did not submit comments opposing this approach.

DOE agrees that IEC-equivalent small electric motors should be covered equipment. DOE understands that while the statutory definition of ''small electric motor'' does not explicitly address IEC motors, Congress directed DOE to consider small electric motors built in accordance with NEMA MG1–1987. NEMA MG1 specifies a broad array of requirements which also generally apply to IEC motors, and do not affect the purpose or design characteristics of these devices. Three reasons support the view that IEC motors identical or equivalent to NEMA motors are covered:

(1) Both motors perform the same functions. IEC-equivalent small electric motors generally can perform the identical functions of EPCA-defined small electric motors. IEC small electric motors are designed and rated according to criteria in IEC 60034–1, whereas EPCA defines small electric motor in terms of design and rating criteria set forth in NEMA MG1. The differences in criteria concern primarily nomenclature, units of measurement, standard motor configurations, and design details, but have little bearing on motor function. Comparable motors of either type can provide virtually equivalent power to operate the same piece of machinery or equipment. Thus, in most general purpose applications, such IEC motors can be used interchangeably with EPCA-defined small electric motors.

(2) Any broad exclusion of IEC-equivalent motors from test procedures or any future energy efficiency requirements would conflict with the energy conservation goal of EPCA and create a regulatory gap that would permit the use of non-compliant small motors, which Congress likely did not intend. Furthermore, any efficiency standards prescribed for small electric motors would be readily applicable to both standard and nonstandard equivalent IEC motors.

(3) Placing energy efficiency requirements on EPCA-defined small electric motors while permitting equivalent IEC motors to remain unregulated would effectively give preferential treatment to those companies who manufacture IEC motors. Such a situation would likely lead to a reduction in the production of NEMA motors while encouraging the increased production of IEC motors, which would be unregulated.

DOE notes that it made similar findings in the past to justify the coverage of equivalent IEC motors. In a prior rulemaking notice addressing 1–200 horsepower electric motors, ''Energy Efficiency Program for Certain Commercial and Industrial Equipment: Test Procedures, Labeling, and Certification Requirements for Electric Motors,'' 61 FR 60440, 60442–43 (November 27, 1996), DOE stated the following:

> The Department interprets the Act as requiring that IEC motors satisfy the same energy efficiency requirements that the statute applies to identical or equivalent to NEMA motors. Thus, under the regulation proposed today, the definition of ''electric motor'' includes IEC motors that have physical and performance characteristics which are either identical or equivalent to the characteristics of NEMA motors that fit within the statutory definition. In the Department's view, there can be no question that EPCA's requirements cover any motor whose physical and performance characteristics fit within the statutory definition of ''electric motor.'' This is true regardless of the measuring units used to describe the motor's performance or characteristics, or of the criteria pursuant to which it was designed.
>
> The Department also understands that comparable IEC and NEMA motors typically are closely equivalent but not identical, and that the characteristics of many IEC motors closely match EPCA's definition of ''electric motor'' but deviate from it in minor respects. It also appears that, for most general purpose applications, such IEC motors can be used interchangeably with the NEMA motors. In addition, as discussed below, the efficiency standards prescribed for standard horsepower motors are readily applicable to both standard and nonstandard kilowatt motors. The Department believes that a broad exclusion of IEC motors from energy efficiency requirements would conflict with the energy conservation goal of the Act, was not intended by Congress, and would be irrational. Furthermore, the Department agrees with the views of commenters that placing energy efficiency requirements on NEMA motors but not on equivalent IEC motors could have the effect of giving preferential treatment to the IEC motors. Thus, the Department construes the EPCA definition of electric motor to include motors that have characteristics equivalent to those set forth in that definition. 61 FR 60443.

As a result, the definition of the term ''electric motor'' was codified under 10 CFR 431.2 to include reference both to NEMA MG1 and IEC-equivalent design, duty rating, dimensions, and performance characteristics. 64 FR 54114 (October 5, 1999). In addition, each element of the codified definition made reference to the applicable provisions in NEMA and IEC standards, which were then incorporated by reference under 10 CFR 431.22. *See* 64 FR 54142.

For all the above reasons and finding no evidence or receiving any comment to the contrary, DOE concludes that IEC-equivalent motors are subject to the same test procedures and any potential energy efficiency standards that apply to EPCA-defined small electric motors. Further, IEEE Std 112, IEEE Std 114, and CAN/CSA–C747, as applicable to small electric motors, are also applicable to those IEC motors that have physical and performance characteristics that are identical or equivalent to those characteristics of the EPCA-defined small electric motors. In DOE's view, EPCA's requirements cover any motor whose physical and performance characteristics fit within the statutory definition of ''small electric motor,'' regardless of the nomenclature, design descriptors, or units expressed that characterize performance. Today's final rule applies the statutory definition in a manner consistent with EPCA and includes motors that have characteristics equivalent to those set forth in that definition. Accordingly, the complete definition codified in today's final rule reads: ''Small electric motor means a NEMA general purpose alternating current single-speed induction motor, built in a two-digit frame number series in accordance with NEMA Standards Publication MG1–1987, including IEC metric equivalent motors.''

2. Insulation System Class

Section 340(13)(G) of EPCA defines the term ''small electric motor'' as a ''NEMA general purpose alternating

current single-speed induction motor, built in a two-digit frame number series in accordance with NEMA Standards Publication MG1–1987.'' (42 U.S.C. 6311(13)(G)) Where EPCA refers to NEMA MG1–1987, paragraph MG1–1.0 within that document defines the term ''general purpose'' motor as one that incorporates, in part, a Class A[8] insulation system with temperature rise as specified in MG1–12.43 for small motors. Advanced Energy asserted that there could be a problem with limiting the definition of general purpose small electric motors to one with Class A insulation. (Advanced Energy, No. 11 at pp. 3–4) Advanced Energy argued that insulation systems used in small electric motors have improved since this definition of general purpose was first standardized in NEMA MG1–1987. Further, as new insulation technologies have improved and material costs have decreased, it has become increasingly common for manufacturers to use insulation temperature classes higher than Class A. Thus, if DOE limits coverage to small electric motors with Class A insulation, a manufacturer could potentially choose between the cost of compliance or moving to a higher insulation class to avoid regulation.

DOE understands the risk that migration from one insulation class to another might be used as a means of circumventing an energy conservation standard. Similarly, DOE is concerned that if IEC motors are not covered, it could open a regulatory gap in coverage. Moreover, DOE is equally concerned that any relatively inexpensive or minor redesign of an existing line of small electric motors (which could include altering the type of insulation used in these products) would enable a manufacturer to circumvent the statutory framework established by Congress.

As part of its technical analysis for the upcoming standards rulemaking for small electric motors, on December 30, 2008, DOE published a notice announcing the availability of a preliminary technical support document. 73 FR 79723. DOE examined both the EPCA definition of ''small electric motor'' and the current use of ''general purpose'' in paragraph 1.6.1 of MG1–2006, Revision 1, and found that the insulation-class coverage of what is considered ''general purpose'' has in fact expanded beyond Class A. In light of this observation, one potential solution would be to apply the term ''general purpose'' to more than one insulation class by modifying the current requirement to cover products equipped with a ''Class A or higher rated insulation system.'' DOE plans to more fully address this issue as part of its energy conservation standards rulemaking for small electric motors.

3. Definition of Basic Model

It is common for a manufacturer to make numerous models of a product covered under EPCA and for each model to be subject to testing to determine compliance with an energy conservation standard. To reduce any undue burden of testing, DOE provides for manufacturers to group together product models having essentially identical energy consumption characteristics into a single family of models, collectively called a ''basic model.'' This concept is well established both for residential appliances and commercial and industrial equipment covered under EPCA. For example, refrigerators are often manufactured according to the same elementary or basic blueprint design and any particular model could incorporate modifications that include type of finish, shelf or drawer arrangement, or some other feature that does not significantly affect the energy efficiency or performance of that appliance. Requiring manufacturers to test the energy efficiency of each model with a different cosmetic feature—*e.g.,* red with four shelves, or bisque with two shelves and two drawers—would create significant and redundant testing burdens for models that share the same energy efficiency performance.

The term ''basic model'' for electric motors is defined in relevant part as: ''all units of a given type of electric motor (or class thereof) manufactured by a single manufacturer and which have the same rating, have electrical characteristics that are essentially identical, and do not have any differing physical or functional characteristics which affect energy consumption or efficiency.'' 10 CFR 431.12. Except for changes to reflect the type of product at issue, this basic model definition also appears in 10 CFR part 431 for products as diverse as commercial refrigerators, freezers, and refrigerator-freezers (Subpart C of 10 CFR part 431), distribution transformers (Subpart K of 10 CFR part 431), illuminated exit signs (Subpart L of 10 CFR part 431), and refrigerated bottled or canned beverage vending machines (Subpart Q of 10 CFR part 431). For covered products and equipment, the characteristics differentiating basic models will vary with the specific designs, features and attributes of the products or equipment. Each manufacturer can then test a sufficient, representative sample of units of each basic model it manufactures, and derive an efficiency rating for each basic model that would apply to all models subsumed by that basic model.

DOE proposed a basic model definition for small electric motors that incorporated these concepts. 73 FR 78223 and 78237–38. The proposed definition read:

> Basic model means, with respect to a small electric motor, all units of a given type of small electric motor (or class thereof) manufactured by a single manufacturer, and which have the same rating, have electrical characteristics that are essentially identical, and do not have any differing physical or functional characteristics which affect energy consumption or efficiency. For the purpose of this definition, ''rating'' means a combination of the small electric motor's group (*i.e.,* capacitor-start, capacitor-run; capacitor-start, induction-run; or polyphase), horsepower rating (or standard kilowatt equivalent), and number of poles with respect to which section 431.346 prescribes nominal full load efficiency standards.[9]

NEMA commented that the only electrical characteristic that may be important among basic models is the stator winding configuration. It noted that it is possible to use different winding configurations, *e.g.,* lap winding or concentric winding, to produce the same performance, including efficiency, for a small electric motor. (NEMA, No. 12 at p. 2) Further, NEMA offered an example of this type of change by explaining that a small electric motor incorporating an internal fan for air movement may have the same efficiency as one which uses blades on the rotor end rings for moving air through the motor. In view of the winding configuration and cooling fan examples, NEMA did not believe the design difference is important with respect to the concept of a ''basic model'' when the efficiency remains the same. (NEMA, No. 12 at p. 2) Finally, NEMA recommended that DOE define ''basic model'' as ''all units of a given type of small electric motor (or class thereof) manufactured by a single manufacturer, and which have the same rating and nominal efficiency.'' (NEMA, No. 12 at p. 2)

In its written comments, NEEA asserted that ''basic model'' is one of the most important terms to clearly define for a rulemaking. NEEA summarized the

[8] Insulation systems are rated by standard NEMA classifications according to maximum allowable operating temperatures, which are: Class A—105 °C (221 °F); Class B—130 °C (266 °F); Class F—155 °C (311 °F); and Class H—180 °C (356 °F).

[9] As indicated earlier, the sections affecting small electric motors will be in a new Subpart X. Accordingly, the reference to section 431.346 in this definition is updated in today's final regulatory text to reflect that fact and read as section 431.446.

industry's view that the basic model regime used for covered (1–200 horsepower) electric motors [as defined in 10 CFR 431.12] be applied to small electric motors, provided that the basic model ''boxes'' for each motor are carefully specified. NEEA added that such ''boxes'' would be synonymous with DOE's equipment classes (*i.e.,* a unique combination of the motor's horsepower, number of poles, and whether the design is a capacitor-start, induction run (CSIR), capacitor-start, capacitor run (CSCR), or polyphase motor).[10] (NEEA, No. 10 at p. 3)

Emerson commented that its design engineers routinely make changes to their electric motors but maintain the same efficiency level. Emerson continued by noting that some manufacturers use more copper and less core steel, while other manufacturers use less copper and more steel. A manufacturer may also make modifications to meet other performance requirements requested by customers, including efficiency, torque, power factor, and inertia. In all, Emerson noted that 15 or 20 different criteria that manufacturers must meet to have a marketable product. Emerson noted that it is able to maintain specific efficiency levels by using AEDM programs that are correlated with actual testing methods. Emerson speculated that the definition of ''basic model'' for small electric motors [under the new 10 CFR 431.342] will follow the same or similar definition found in 10 CFR 431.12 for 1–200 horsepower electric motors, which potentially will result in fewer basic models of small electric motors than the current 113 basic models of electric motors [in 10 CFR 431.25]. (Emerson, Public Meeting Transcript, No. 8 at pp. 51–52)

DOE notes that there are well-established differences in its regulatory program between equipment classes,[11] basic models, and compliance certification reporting. From the comments submitted, it appears that interested parties did not fully understand these differences. The following discussion clarifies these three important concepts as they apply to small electric motors.

The concept of a basic model was created to help reduce repetitive testing burdens on manufacturers while ensuring that energy efficiency standards are maintained. Equipment classes for small electric motors are represented by the number of boxes contained in the three matrices (*i.e.,* CSIR, CSCR, and polyphase small electric motors) of horsepower ratings and number of poles contained in the chart that organizes these items. In its Preliminary Technical Support Document, the engineering analysis addressed 72 potential equipment classes for small electric motors.[12] *See http://www1.eere.energy.gov/buildings/appliance_standards/commercial/small_electric_motors_nopr_tsd.html.* The equipment classes are the smallest subgroups of small electric motors where DOE would establish discrete efficiency levels—*i.e.,* there would be one efficiency value or equation for each equipment class.

Basic models represent all units of a given type of small electric motor (or class thereof) manufactured by a single manufacturer, having the same rating [13] and electrical characteristics that are essentially identical, and which do not have any differing physical or functional characteristics that affect energy consumption or efficiency. In essence, basic models are unique blueprints for each electrical motor design generated by a manufacturer, even if a particular catalog model incorporates minor design changes as described by Emerson. Minor design changes can occur every day due to customer needs, material costs, and the intrinsic nature of the manufacturing and testing processes. These basic models may have the same numerical efficiency percentages, but they are not the same basic model if they are incorporating design changes that affect their rated nominal full load efficiency (*e.g.,* a stator loss increase offset by a rotor loss decrease).

For 1 through 200 hp electric motors, one manufacturer can have thousands of basic models in any one equipment class. The regulations require each covered electric motor to have a ''nominal full load efficiency of *not less than''* (emphasis added) the prescribed efficiency level. *See* 10 CFR 431.25(a) (listing electric motor efficiency standards), 431.36(b)(1)(i) (requiring certification of efficiency requirements), and 431.36(e) (requiring certification for each basic model). Thus, the regulations allow a manufacturer to conservatively rate their products within a certain efficiency range according to the definition of ''nominal full load efficiency,'' pursuant to 10 CFR 431.12. In other words, the regulations do not prohibit manufacturers from combining a number of basic models into a single basic model and then reporting the combined set at the lowest nominal full load efficiency within that aggregated basic model.

Individual manufacturer burdens are further reduced by simplifying the reporting requirements manufacturers need to meet. For 1–200 hp electric motors, under 10 CFR 431.36(b)(2), a manufacturer must report the nominal full load efficiency of the ''least efficient basic model within that rating.'' The same holds true under 10 CFR 431.36(e) where a new Compliance Certification must be submitted for a new basic model only if the new basic model has a lower nominal full load efficiency than otherwise previously certified. Therefore, while a manufacturer may be preparing thousands of designs for a given equipment class, the manufacturer would only report to DOE (for compliance purposes) the nominal full load efficiency of the least-efficient basic model within any given equipment class. DOE then compares the reported efficiency against the required nominal full load efficiency level to verify that all basic models within a given equipment class by that manufacturer are in compliance. In a future rulemaking, DOE intends to consider similar burden-reducing provisions for small electric motors (the product covered in today's final rule), should DOE establish energy conservation standards for small electric motors.

As discussed earlier in this section, NEMA proposed a new definition for the term ''basic model.'' (NEMA, No. 12 at p. 2) DOE cannot accept NEMA's proposed definition because it is not consistent with the long established and widely accepted basic model concept throughout both 10 CFR parts 430 and

[10] A CSIR motor is a single-phase motor with a main winding arranged for direct connection to a source of power and an auxiliary winding connected in series with a capacitor. The motor has a capacitor phase, which is in the circuit only during the starting period. A CSCR motor is a single-phase motor which has different values of effective capacitance for the starting and running conditions. A polyphase motor is an electric motor that uses the phase changes of the electrical supply to induce a rotational magnetic field and thereby supply torque to the rotor. (*See* Chapter 2: Analytical Framework, Comments from Interested Parties, and DOE Responses, at p. 2–7 (December 30, 2008) (available at *http://www1.eere.energy.gov/buildings/appliance_standards/commercial/pdfs/ch_2_small_motors_nopr_tsd.pdf*).

[11] For covered products in 10 CFR part 431, DOE uses the phrase ''equipment classes'' and for covered products in 10 CFR part 430, DOE uses the phrase ''product classes.'' They signify exactly the same concept, but use slightly different language meant to reflect the use of the word ''product'' for residential appliances in 10 CFR part 430 and the word ''equipment'' for commercial and industrial units in 10 CFR part 431.

[12] *See: http://www1.eere.energy.gov/buildings/appliance_standards/commercial/small_electric_motors_nopr_pub_mtg.html.*

[13] For the purpose of this definition, ''rating'' means a combination of the horsepower (or standard kilowatt hour equivalent), number of poles, and motor type (*i.e.,* capacitor-start, capacitor-run; a capacitor-start, induction-run; or a polyphase small electric motor).

431. DOE understands that NEMA's proposed definition would allow a single basic model to include many different designs of small electric motors that have significantly different utility or performance-related features that affect their efficiency, but which have the same numerical nominal efficiency value. In other words, these motors could have different operating voltages, winding configurations, or other design changes that would make them separate and distinct basic models in view of DOE's national regulatory program. Thus, DOE believes that NEMA's proposed definition is inconsistent with the ''basic model'' concept as it has long been applied and understood across a range of covered consumer products and commercial equipment.

DOE continues to believe that any definition of basic model must require that all the included models have virtually identical energy consumption characteristics and be within the same equipment class. Such an approach is necessary to assure that the efficiency rating derived for a particular basic model accurately represents the efficiency of all of the small electric motors encompassed therein. Therefore, DOE is defining ''basic model'' for small electric motors by including a requirement that any small electric motors falling into a basic model grouping ''not have any differentiating electrical, physical or functional features that affect energy consumption.'' A few examples of electrical, physical, and functional features that may affect energy consumption for small electric motors include, among others, changing: The operating voltage, the electrical steel, the stack height, the wire in the windings, the insulation rating, and the air gap between the stator and rotor.

DOE recognizes that manufacturers will have many basic models that fit under today's definition of basic model for each small electric motor equipment class, *i.e.,* each combination of the group (*i.e.,* capacitor-start, capacitor-run; capacitor-start, induction-run; or polyphase), horsepower rating (or standard kilowatt equivalent), and number of poles. The basic model concept ensures that no design manufactured and distributed in commerce would be below the minimum regulatory standard. However, DOE is unaware of any practicable way to aggregate models with different energy consumption characteristics, for purposes of testing, which would produce an accurate efficiency rating for each model included in an aggregated group of models.

To address undue testing burdens on an individual manufacturer, as discussed later in this notice, DOE is adopting in today's final rule a provision that permits the use of an AEDM, which, once substantiated by a manufacturer, will allow that manufacturer to rate the efficiency of many small electric motors based on calculations and software modeling instead of physical testing. In addition, DOE intends to propose in a future rulemaking the compliance certification provisions for small electric motors, which would likely be based on the established and recognized reporting requirements for (1–200 hp) electric motors at 10 CFR 431.36. These provisions require manufacturers to report only the least efficient rated basic model within an equipment class. Taken together, DOE believes these two provisions will greatly reduce testing and reporting burden on manufacturers of small electric motors while adhering to the existing requirements that apply to both manufacturers of electric motors and other commercial and industrial equipment covered under 10 CFR part 431.

Therefore, in view of all the above, today's final rule defines a basic model for small electric motors as all units of a given type of small electric motor (or class thereof) manufactured by a single manufacturer, having the same rating and electrical characteristics that are essentially identical, and which do not have any differing physical or functional characteristics that affect energy consumption or efficiency. For the purpose of this definition, ''rating'' means a combination of the horsepower (or standard kilowatt hour equivalent), number of poles, and whether the motor is a capacitor-start, capacitor-run; capacitor-start, induction-run; or polyphase small electric motor, with respect to which 10 CFR 431.446 prescribes nominal full load efficiency standards.

B. Test Procedures for the Measurement of Energy Efficiency

DOE proposed that the test procedure for measuring the energy efficiency of a small electric motor be based on one of the following methods: IEEE Std 114, IEEE Std 112, or CAN/CSA–C747–94. (73 FR 78223 and 78238) DOE understands that the scope of small electric motors includes single-phase and polyphase designs that cover fractional and integral horsepower ratings that can be tested according to somewhat different but equivalent methodologies, using the same measurements and producing virtually the same results. The application of these methods and commenter responses to them are further discussed below.

1. Single-Phase Small Electric Motor Test Method

For single-phase small electric motors, DOE proposed to incorporate the test method in IEEE Std 114, which measures and compares output power and input power. In addition, DOE proposed CAN/CSA–C747 as an alternative test method, believing that it would provide equivalent rigor and render virtually equivalent results.

Advanced Energy and NEEA agreed both with the use of IEEE Std 114 and CAN/CSA–C747 as an alternative method. Advanced Energy commented that IEEE Std 114 and the CAN/CSA–C747 are both input-output methods with minor differences and recommended that these test methods be used for single-phase small electric motors. (Advanced Energy, No. 11 at pp. 1–3) NEEA also agreed with DOE's proposal to use IEEE Std 114 and CAN/CSA–C747 as an alternative test method. (NEEA, No. 10 at p. 1) DOE did not receive any comments objecting to the adoption of either test method. Therefore, in today's final rule, DOE is incorporating by reference IEEE Std 114 and the CAN/CSA–C747 as test methods for single-phase small electric motors.

2. Polyphase Small Electric Motor Test Method

For polyphase small electric motors, DOE proposed the use of IEEE Std 112, without specifying the use of one of the particular test methods available in that test procedure, such as Method A or Method B. DOE also proposed that manufacturers be allowed to use CAN/CSA–C747 as an alternative test method on the basis that it would provide equivalent rigor and render equivalent results with IEEE Std 112, while offering manufacturers some flexibility on testing methods used.

In general, interested parties were receptive to DOE's proposal, but requested that DOE specify which test method to use. During the public meeting, a consensus developed that CAN/CSA–C747 is consistent with the IEEE Std 112 Test Method A, but that a different CAN/CSA test method should be used if DOE adopts IEEE Std 112 Test Method B.

Concerning which IEEE Std 112 test method DOE should adopt, Advanced Energy stated that there are several methods in IEEE Std 112 but highlighted Test Methods A and B. (IEEE Std 112 Test Method B has

already been incorporated by reference for 1–200 hp electric motors in 10 CFR 431.15(b)(2).) Advanced Energy described IEEE Std 112 Test Method B as the ''loss segregation method.'' This method determines efficiency by calculating the constituent losses of the motor, including stray load losses, through its measurements and methodology. (Advanced Energy, No. 11 at pp. 1–2) However, Advanced Energy asserted that IEEE Std 112 Test Method B cannot be adopted for all small electric motors because: (1) IEEE Std 112 recommends Test Method A for motors rated less than 1 kilowatt (kW), which covers most of the small electric motors under consideration; and (2) there is an inherently significant difference between the input-output calculation method (IEEE Std 112 Test Method A, consistent with CAN/CSA–C747) and the loss-segregation method (IEEE Std 112 Test Method B, consistent with CAN/CSA–C390 Test Method 1 [14]). Advanced Energy stated that if a polyphase small electric motor were tested according to IEEE Std 112 Test Method B and CAN/CSA–C747, the difference in the efficiency results would be significant; whereas if the same test was done between IEEE Std 112 Test Method A and CAN/CSA–C747, the results would be similar. (Advanced Energy, No. 11 at pp. 1–2)

Advanced Energy summarized its comments as follows: (1) The test procedure for polyphase small electric motors should be IEEE Std 112 Test Method A and the test procedure for single-phase small electric motors should be IEEE Std 114; (2) the CAN/CSA–C747 and IEEE Std 114 test methods are essentially direct input-output methodologies that produce equivalent test results; (3) use of IEEE Std 112 Test Method B for polyphase small electric motors compared to CAN/CSA–C747 would produce significant variations in measured efficiency for the same motor; and (4) CAN/CSA–C747 may be used as an alternative test method alongside IEEE Std 112 Test Method A and IEEE Std 114. (Advanced Energy, No. 11 at p. 3)

NEMA echoed many of the same points raised by Advanced Energy. According to NEMA, IEEE Std 112 lists 11 different procedures for testing polyphase motors. NEMA commented that DOE should identify a specific test procedure to be used for determining the efficiency of small electric motors. (NEMA, No. 12 at pp. 3–4) It noted that IEEE Std 112 Test Method A is the method commonly used by the motor industry for testing small electric motors. While the NOPR proposed the use of ''IEEE Standard 112,'' it did not identify a particular test method that accounts for motor size, such as a (T-frame) ''electric motor'' or a (two-digit frame) ''small electric motor.'' (73 FR 78238) Further, IEEE Std 112 recommends that Test Method A be limited to motors rated less than 1 kW (1.34 hp). Test Method B is recommended for motors rated 1–300 kW and is the test method prescribed in appendix B to subpart B for ''electric motors.'' Test Method A in IEEE Std 112 for polyphase motors is essentially the same as the test methods in IEEE Std 114 for single-phase motors and in CAN/CSA–C747 both for three-phase small motors (up to 0.746 kW at 1800 revolutions per minute (rpm)) and single-phase small motors (up to 7.5 kW). NEMA noted that Test Method B in IEEE Std 112 is essentially equivalent to Test Method 1 in CAN/CSA–C390 for polyphase motors rated 0.746 kW or greater at 1800 rpm. The specific ratings for the application of the CAN/CSA standards are based on a kW rating at 1800 RPM. For other speeds it is assumed that the corresponding rating is based on constant torque, such that the kW rating at some other speed ''S'' would be equal to kW@1800 * S/1800. To cover the required test procedures adequately, NEMA encouraged DOE to add an appendix B to the proposed subpart T (now Subpart X) of 10 CFR part 431, similar to appendix B to subpart B of 10 CFR part 431. Also, NEMA recommended that DOE adopt the use of the various IEEE and CAN/CSA test procedures along with their respective hp/kW ranges, as indicated above. (NEMA, No. 12 at pp. 3–4)

During the public meeting, Baldor added that, for polyphase small electric motors, DOE should adopt both IEEE Std 112 Test Method A and Test Method B. Baldor noted that IEEE Std 112 Test Method A is similar to the test method DOE is adopting for single-phase small electric motors (IEEE Std 114). (Baldor, Public Meeting Transcript, No. 8 at p. 32) DOE did not receive any comments objecting to this approach.

DOE considered all these comments on the testing methodologies for polyphase small electric motors and, consistent with the majority of interested parties, including NEMA, is adopting both IEEE Std 112 Test Method A and Test Method B in today's final rule. DOE is apportioning the covered motors to these two different test methods according to the guidance provided in IEEE Std 112.[15]

DOE had proposed adopting IEEE Std 112 in its entirety, but today's final rule modifies that proposal by delineating the scope of coverage for the test procedure consistent with the recommendation in IEEE Std 112. However, since DOE intends to establish its regulatory standard on the basis of standard horsepower ratings, DOE will not be assigning motors to be tested with IEEE Std 112 Test Method A or Test Method B according to a kilowatt rating. Instead, DOE is basing the applicable test method on horsepower ratings. Since IEEE Std 112 Test Method A is applicable to polyphase small electric motors *below* 1 kilowatt (1.34 horsepower), DOE is applying this method to small electrical motors rated *at or below* 1 horsepower. A demarcation based on horsepower rather than kilowatts makes this division more practicable since manufacturer literature indicates that small electric motors marketed for the U.S. are generally grouped by horsepower ratings, with 1 hp being the first common horsepower rating below 1 kilowatt (1.34 horsepower). Similarly, IEEE Std Test Method B will be applicable to polyphase small electric motors rated greater than 1 horsepower.

Furthermore, in today's final rule, while DOE is adopting CAN/CSA–C747 for single-phase small electric motors, DOE is not adopting any alternative test methods promulgated today for polyphase small electric motors based on CAN/CSA–C747 or CAN/CSA–C390 Test Method 1 because there may be an inconsistency in the measured efficiency associated with units tested under IEEE Std 112 Test Method B and CAN/CSA–C747. Instead, DOE plans to raise this issue in a SNOPR and propose adopting: (1) CAN/CSA–C747 as an alternative to IEEE Std Test Method A for polyphase small electric motors rated less than or equal to one horsepower (0.746 kilowatt) and (2) CAN/CSA–C390, ''Energy Efficiency Test Methods for Three-Phase Induction Motors'' (Test Method 1) as an alternative to IEEE Std Test Method B for polyphase small electric motors that have a rating greater than one horsepower (0.746 kilowatt).

[14] CAN/CSA–C390 Test Method 1 is the Canadian test method that is considered to be equivalent to IEEE 112 Std Test Method B. In the existing test procedure for electric motors in Appendix B to Subpart B of 10 CFR part 431, manufacturers determine efficiency and losses according to either IEEE 112 Std Test Method B or CAN/CSA–C390 Test Method 1.

[15] Section 6.2.1 on page 34 of IEEE Std 112 states ''[t]he input-output method (Efficiency Test Method A) should be limited to machines with ratings less than 1 kW.''

C. Alternative Efficiency Determination Method

1. Statistical Basis for an Alternative Efficiency Determination Method

DOE proposed that the efficiency of a small electric motor must be determined either through actual testing or by using an AEDM, provided that its reliability and accuracy are substantiated by testing five basic models that are based on a sample of five production units selected at random and tested. 73 FR 78238–39.

In view of the above, NEEA commented that while it supported the use of an AEDM methodology, it expressed concern that DOE's proposal to substantiate the AEDM for small electric motors by testing a minimum of five motors, each from a minimum of five basic models, may not produce a statistically defensible model. (NEEA, No. 10 at p. 2) NEEA also questioned whether AEDMs were sufficiently rigorous to predict total power loss within ten percent of the mean total power loss, compared to actual testing. NEEA asserted that total power loss will likely range from 10 to 30 percent, depending on the basic model and the standards that are set. Consequently, the magnitude of AEDM error will approach the difference between two prescribed standard efficiency levels, thereby making it more difficult to justify the standard levels. NEEA requested more discussion about whether a given AEDM's accuracy properly accounts for (1) variability in manufacturing and product performance and (2) limitations in the calculations used to represent the design, construction, and operating conditions of the motors being tested. (NEEA, No. 10 at p. 2)

DOE understands NEEA's concerns about the adequacy of using an AEDM for small electric motors and whether it is sufficient to determine which level of efficiency is supported by testing samples selected from the total population. NEEA's concern appears to be with overlapping nominal efficiency distributions and the probability that the sample tested may indicate an incorrect nominal efficiency for the basic model. DOE understands that two populations of motors could intersect each other, given the variations inherent in the manufacturing process and efficiency testing. This situation is a result of basing calculations on efficiency, when the criteria for selecting discrete values of nominal efficiency for marking small electric motors would be based on step changes in the total losses. Also, the difference in losses between efficiency levels that may appear would be slight, primarily due to mathematical rounding when calculating the efficiency values. Nevertheless, DOE believes that the probability of overlapping efficiency levels is small because the AEDM is substantiated through the modeling and construction of actual small electric motors. As a result, in DOE's view, the use of proposed AEDM is reasonable for compliance certification because it balances the manufacturer's and consumer's risks that the minimum permissible value of average efficiency for the sample falls between the nominal efficiency value to be declared by the manufacturer and the next lower value of nominal efficiency.

Moreover, the proposed AEDM follows the widely accepted precedent for (1–200 hp) electric motors, at 10 CFR 431.17, which is based on National Institute of Standards and Technology (NIST) Internal Report 6092, January 1998, ''Analysis of Proposals for Compliance and Enforcement Testing Under the New Part 431; Title 10, Code of Federal Regulations.'' That report analyzed a variety of criteria and sampling plans for establishing compliance with standards prescribed by EPCA. DOE concluded that the findings of this study, which indicated that the sampling plan for electric motors was statistically sound and sufficiently rigorous to ensure compliance with a regulatory standard, were also appropriate and applicable to the testing of small electric motors. Furthermore, under the new 10 CFR 431.445(b)(3) adopted today, as with 10 CFR 431.17(a)(3), the accuracy and reliability of any AEDM must be substantiated through statistically valid sampling and testing in accordance with established industry standards. Therefore, DOE believes the proposed AEDM requirements are sufficiently rigorous for compliance, without being unduly burdensome to a manufacturer.

2. Sample Size for Substantiating an Alternative Efficiency Determination Method

DOE proposed a statistical sampling regimen for selecting representative basic models out of a population of small electric motors for testing, to validate an AEDM. (73 FR 78239) NEMA pointed out that according to the proposed section 431.345(b)(1)(i)(C), ''the [five] basic models should be of different frame number series without duplication.'' In contrast, the two-digit NEMA frame number series consists only of three values: 42, 48, and 56. While the proposed 10 CFR 431.345(b)(1)(ii) in the NOPR provided instructions for when section 431.345(b)(1)(i)(C) cannot be satisfied, NEMA believed it preferable to recognize this testing requirement at the outset. NEMA suggested that the provision at 10 CFR 431.345(b)(1)(i)(C) be changed to read ''At least one basic model should be selected from each of the frame number series for the designs of small electric motors for which the AEDM is to be used.'' (NEMA, No. 12 at p. 4)

DOE understands that modifying the proposed sampling regimen is necessary to reflect the frame number series available for sampling small electric motors given the relative paucity of two-digit frame number series identified in Table 4–2 in NEMA Standards Publication MG1–2006 (Table 11–1 in NEMA Standards Publication MG1–1987), which has only three frame numbers in the two-digit series. DOE also understands that any sampling plan should represent the total population and, in this case, reflect the importance of substantiating an AEDM by selecting at least one basic model from each frame number series. Consequently, DOE is adopting NEMA's proposed language for section 431.445(b)(1)(i)(C).

3. Omission of Alternative Efficiency Determination Method Substantiation

The NOPR proposed a new section 431.345(b)(2), which would have provided details regarding the manner in which to select units for testing within a basic model. However, NEMA pointed out that the proposed section 431.345(b)(2) did not specify what manufacturers should do with the results of the tests of those five units in determining whether the basic model complies with any efficiency standards that DOE may set in the future. NEMA recommended that DOE establish a clear set of rules to follow as part of the test procedure to determine whether the basic model is in compliance based on the tests of the five units. (NEMA, No. 12 at p. 5)

NEMA also commented that if DOE intended to follow the existing requirements in section 431.17(b)(2) for electric motors, it may need to ascertain whether the same requirements apply to small electric motors, because this section is based on the NEMA nominal and corresponding minimum efficiency values for electric motors from NEMA MG1–12.58.2 (2006). Since the NOPR only proposed to define the term ''average full-load efficiency,'' DOE would need to define the term ''nominal full-load efficiency'' in order to adopt the same requirements for small electric motors that currently apply to electric motors under section 431.17(b)(2). NEMA also pointed out that the electric motors covered under NEMA MG1–

12.58.2 (2006) are tested according to IEEE Std 112 Test Method B and not Test Method A. NEMA offered to assist DOE in developing the proper analysis of the results of the tests of the five units of a basic model, to determine if the basic model complies with any efficiency standard that DOE might establish. (NEMA, No. 12 at p. 5)

DOE appreciates NEMA's comments, but notes that nominal full-load efficiency values need only be defined if and when DOE adopts energy conservation standards for small electric motors. The test procedure is only intended to measure the losses of a particular motor in a sample of motors, which it does. Measured losses can then be used to determine the full-load efficiency for the one motor and, thereafter, to calculate the average of the full-load efficiencies of the several motors in the sample. DOE believes it will become necessary to establish nominal full-load efficiency values in the future, values that would be selected from a table similar to Table 12–10 for 1 to 200 hp electric motors, in MG1–2006. Recognizing that this table is based on efficiency measurements using IEEE Std 112 Test Method B, DOE invites NEMA and other interested parties to provide additional input, data, and information about what a table of nominal full-load efficiencies for small electric motors, tested according to IEEE Std 112 Test Method A and IEEE Std 114, might look like. DOE intends to address the matter of nominal full-load efficiency levels as part of its energy conservation standards rulemaking for small electric motors.

D. Testing Laboratory Accreditation

EPCA provides different requirements for determining the energy efficiency of (two-digit NEMA frame) small electric motors and (three-digit NEMA frame) electric motors. Specifically, section 345(c) of EPCA directs the Secretary of Energy to require manufacturers of ''electric motors'' to ''certify, through an independent testing or certification program nationally recognized in the United States, that [any electric motor subject to EPCA efficiency standards] meets the applicable standard.'' [16] (42 U.S.C. 6316(c)) Section 342(b) of EPCA establishes the applicable energy efficiency standards for electric motors. (42 U.S.C. 6313(b)) EPCA, however, does not include compliance certification requirements for small electric motors. Because small electric motors are covered under section 346(b) of EPCA (42 U.S.C. 6317(b)), the certification requirements that apply to electric motors do not apply to small electric motors.

DOE proposed in the NOPR to allow a manufacturer to self-certify the efficiency test results for its small electric motors (*i.e.,* not require ''independent testing''), which DOE believes is consistent with the compliance certification requirements for other commercial products such as high-intensity discharge lamps and distribution transformers covered under section 346 of EPCA. Nevertheless, DOE is considering proposing at a later date compliance certification requirements for small electric motors equivalent to those in place for electric motors (*i.e.,* requiring manufacturers to test small electric motors through an independent testing or certification program nationally recognized in the United States).

NEMA observed that small electric motors sold in the U.S. are also sold in Canada, and that Canadian regulatory entities are considering following DOE's lead in any efficiency standard developed for small electric motors. (NEMA, No. 12 at p. 4) NEMA noted that the only means to certify compliance for electric motors in Canada is through the CAN/CSA Energy Efficiency Verification Program. Further, given the likelihood that the Canadian government will require small electric motors to be certified through the same CAN/CSA Energy Efficiency Verification Program, NEMA requested that DOE recognize independent third party efficiency certification programs for small electric motors. However, NEMA was clear that it was not encouraging DOE to mandate the use of independent third party certification programs or accreditation programs for testing facilities. Rather, it stressed that DOE recognition of such programs would encourage voluntary use of certification through third parties, such as NIST/NVLAP. In addition, NEMA recommended that DOE allow sufficient time for the approval of such programs and manufacturer participation in such programs because no accreditation programs for testing in accordance with IEEE Std 112 Method A, IEEE Std 114, or CAN/CSA–C747 currently exist.

NEEA expressed its support for a nationally recognized certification program or accredited laboratory, according to the requirements established in 10 CFR 431.17(a)(5). Further, it recommended that DOE apply the same requirements to the small electric motors covered in this rulemaking. (NEEA, No. 10 at p. 2)

In view of the above comments, DOE intends to address these matters as part of a SNOPR for electric motor test procedures, and will invite comments as to whether independent third party compliance certification or laboratory accredited programs for small electric motors should (1) be established and (2) be made mandatory or voluntary.

E. Certification and Enforcement

NEMA expressed concern that the proposed subpart T (now Subpart X) of 10 CFR part 431 did not include a means for identifying the test procedure to follow when certifying the efficiency of a small electric motor. (NEMA, No. 12 at p. 5) Also, NEMA questioned how DOE would enforce any potential energy efficiency standards for small electric motors, particularly for those small electric motors incorporated into equipment that is imported into the United States. NEMA asked how DOE intends to make enforcement applicable to small electric motors in 10 CFR part 431. (NEMA, No. 12 at p. 6)

DOE notes that it published in the **Federal Register** a NOPR that, in part, included provisions under a new Subpart T—Certification and Enforcement to ensure compliance with EPCA's energy conservation standards, which, with minor modifications could apply to small electric motors. 71 FR 42178, 42214 (July 25, 2006). In that NOPR, DOE proposed a new section 431.370 that described the purpose and scope of a proposed subpart T of 10 CFR part 431. Subpart T would set forth the procedures to be followed for manufacturer compliance certifications of all covered equipment except electric motors (which are not small electric motors). Subpart T would also set forth details regarding the determination of whether a basic model of covered equipment, other than electric motors and distribution transformers, complies with the applicable energy or water conservation standard set forth in 10 CFR part 431.

Although Subpart T—Certification and Enforcement as proposed in the July 2006 NOPR would not apply to 1–200 horsepower electric motors, it would apply to small electric motors, should DOE promulgate energy conservation standards for this equipment. However, because the July 26, 2006, NOPR remains an active and on-going rulemaking at DOE and, to avoid confusion, DOE chose not to propose certification and enforcement

[16] Further, 10 CFR 431.17(a)(5) provides for a manufacturer to establish compliance either through (1) a certification program that DOE has classified as nationally recognized, such as CAN/CSA or Underwriters Laboratories, Inc., or (2) testing in any laboratory that is accredited by the National Institute of Standards and Technology/National Voluntary Laboratory Accreditation Program (NIST/NVLAP).

requirements in its December 2008 NOPR. 73 FR 78220.

F. Other Issues Raised

In response to the December 2008 NOPR, interested parties drawing comparisons between provisions for electric motors in 10 CFR part 431 and the proposed test procedure for small electric motors submitted questions concerning issues and requirements that were not included in the NOPR. These issues are addressed below.

1. Definition of ''Nominal Full-Load Efficiency''

NEMA noted that for electric motors covered under Subpart B of 10 CFR part 431, the term ''nominal full-load efficiency'' is the metric for determining compliance with the applicable energy efficiency standards in 10 CFR 431.25. The term ''nominal full-load efficiency'' is defined under 10 CFR 431.12 and, in part, elements of the definition refer to NEMA MG1–1993 Table 12–8, which provides a column of nominal efficiency values and a column of corresponding minimum efficiency values. NEMA expressed concern that the NOPR did not specify which nominal full load efficiency values DOE plans to use when determining small electric motor compliance. NEMA offered to assist DOE in this regard. (NEMA, No. 12 at p. 3)

DOE appreciates NEMA's offer and recognizes that there are different full-load efficiency values defined in 10 CFR 431.12: average full-load efficiency [17] and nominal full-load efficiency.[18] Also, DOE recognizes that the efficiency values presented in NEMA MG1–1993 Table 12–8 were created using IEEE Std 112 Test Method B, and may not apply to all small electric motors, most of which will be measured for efficiency using IEEE Std 114 and IEEE Std 112 Test Method A.

DOE is concerned about the actual measured energy efficiency and AEDM-modeled energy efficiency, making the output of the measured or modeled efficiency value the most relevant factor when comparing energy efficiency standards. As a result, DOE plans to define nominal full-load efficiency for small electric motors under a separate rulemaking.

2. Materials Incorporated by Reference

In its December 2008 NOPR, DOE proposed test procedures for small electric motors by incorporating by reference IEEE Std 112, ''Test Procedure for Polyphase Induction Motors and Generators,'' IEEE Std 114, ''Test Procedure for Single-Phase Motors,'' and CAN/CSA–C747, ''Energy Efficiency for Single- and Three-Phase Small Motors.'' In addition, DOE proposed to update the citations of industry standards that are incorporated by reference under 10 CFR 431.15, which included NEMA Standards Publication MG1, ''Motors and Generators;'' IEEE Std 112, ''Test Procedure for Polyphase Induction Motors and Generators;'' and CAN/CSA–C390, ''Energy Efficiency Test Methods for Three-Phase Induction Motors.'' 73 FR 78221.

NEMA expressed concern that DOE proposed for incorporation by reference into new 10 CFR 431.343 for small electric motors, only certain test methods in IEEE Std 112 and 114, and, separately, CAN/CSA C747 and C390. This was in contrast to DOE's inclusion of construction and performance standards for ''electric motors'' in 10 CFR 431.15. In NEMA's view, this omission was particularly troubling because DOE overlooked incorporating by reference certain IEC standards into the new proposed Subpart T (now Subpart X) of 10 CFR part 431. NEMA requested that DOE include the appropriate NEMA and IEC standards in the list of materials incorporated by reference and identify the source for those materials. (NEMA, No. 12 at p. 3)

DOE did not incorporate by reference construction and performance standards for small electric motors in the NOPR because of statutory limitations. Outside of clarifying the EPCA definition of ''small electric motor,'' 42 U.S.C. 6311(13)(G), DOE's mandate for establishing test procedures and energy conservation standards for small electric motors does not extend to prescribing construction or performance standards. Where 10 CFR 431.15 prescribes certain provisions in NEMA Standards Publication MG1 and IEC 60050–411, 60072–1, and 60034–12, which, collectively, include dimensions, mounting, frames, and performance characteristics, DOE made such provisions to clarify the scope of coverage of electric motors. 64 FR 54114 (October 5, 1999) (final rule covering test procedures, labeling, and certification requirements for electric motors). At the time of that rulemaking, DOE added a policy statement as appendix A to Subpart A of 10 CFR part 431 (presently appendix A to Subpart B of 10 CFR part 431) to provide additional guidance as to which types of motors are ''electric motors.'' Notwithstanding the provisions under 10 CFR 431.15, other products covered in 10 CFR part 431 do not address construction and performance standards or similar requirements. DOE addresses scope of coverage matters in section III.A of today's rule, and clarifies what it considers IEC-equivalent small motors that could be used as substitutes for covered small electric motors. Therefore, DOE makes no changes in today's final rule that would otherwise pertain to construction and performance standards for small electric motors. As explained above, DOE considers IEC-equivalent motors, which can be used as substitutes for small electric motors, to be covered.

3. Labeling Requirements

The December 2008 NOPR did not provide requirements for labeling energy efficiency or compliance certification for small electric motors. NEMA argued that DOE omitted provisions for labeling energy efficiency and compliance certification information for small electric motors in the newly proposed Subpart T (now Subpart X) of 10 CFR part 431. NEMA recommended that DOE include such provisions, similar to those in 10 CFR 431.30 [10 CFR 431.31] for ''electric motors.'' Further, NEMA suggested that DOE permit a manufacturer, both of electric motors and small electric motors, to use the same compliance certification number on both its electric motors and small electric motors. (NEMA, No. 12 at p. 5)

The NOPR did not provide labeling requirements for small electric motors because DOE has not yet established whether energy conservation standards will be adopted for small electric motors. Once DOE establishes these standards, it will prescribe labeling requirements consistent with the statute. (42 U.S.C. 6317).

4. Preemption of State Standards and Labeling

Sections 431.26 and 431.32 of 10 CFR part 431 cover electric motors and provide for preemption of State regulations, both for energy conservation standards and disclosure of electric motor information with respect to energy consumption. The NOPR does not address preemption of State regulation.

[17] Average full-load efficiency is defined as ''the arithmetic mean of the full-load efficiencies of a population of electric motors of duplicate design, where the full-load efficiency of each motor in the population is the ratio (expressed as a percentage) of the motor's useful power output to its total power input when the motor is operated at its full rated load, rated voltage, and rated frequency.'' 10 CFR 431.12.

[18] Nominal full-load efficiency is defined as ''a representative value of efficiency selected from Column A of Table 12–8, NEMA Standards Publication MG1–1993, (incorporated by reference, *see* 10 CFR 431.15), that is not greater than the average full-load efficiency of a population of motors of the same design.'' 10 CFR 431.12.

NEMA noted that the NOPR did not include a specific preemption provision for small electric motors in new Subpart T (now Subpart X) of 10 CFR part 431, and recommended that DOE include such a provision for preemption much like the one that currently applies to electric motors in 10 CFR 431.26. (NEMA, No. 12 at p. 5)

As a preliminary matter, DOE notes that Congress specifically provided for the preemption of electric motors. *See* 42 U.S.C. 6316(a). However, a similar provision was not included for small electric motors. However, small electric motors standards would be covered under general preemption principles. Energy conservation standards that are established under, or promulgated pursuant to, EPCA are national standards. In general, these standards preempt State and local regulations when those regulations conflict with the national standards unless otherwise provided by law. With respect to the energy conservation standards, States may petition DOE for a waiver from these standards. By statute, a State must demonstrate that unusual and compelling State or local energy interests exist that would justify the granting of such a waiver. Accordingly, DOE does not believe that the inclusion of a specific preemption provision is required.

5. Petitions and Waivers

Subpart V—General Provisions of 10 CFR part 431 prescribes requirements for the submissions of petitions for waiver and interim waivers for any basic model of electric motor covered under 10 CFR 431.16. The NOPR did not address petitions for waiver, and applications for interim waiver, of test procedures for small electric motors.

NEMA questioned whether DOE intends to make applicable to small electric motors the relevant parts of ''Subpart L, General Provisions'' [19] for electric motors, or create a new subpart. (NEMA, No. 12 at p. 6)

DOE intends to address this issue specifically in a separate rulemaking.[20]

[19] Although NEMA says ''Subpart L, General Provisions'' from the context of their comment, it is clear it meant ''Subpart V, General Provisions.'' Subpart L was redesignated Subpart V on October 18, 2005. 70 FR 60417.

[20] DOE notes that Section 323(e) of EPCA (42 U.S.C. 6293(e)), which requires DOE to consider the impacts of a test procedure amendment to the applicable energy efficiency or energy use of a covered product, does not apply in this instance because DOE is promulgating a new test procedure for small electric motors and no energy conservation standards are currently in effect.

IV. Procedural Requirements

A. Executive Order 12866

Today's regulatory action is not a ''significant regulatory action'' under section 3(f) of Executive Order 12866, ''Regulatory Planning and Review,'' 58 FR 51735 (October 4, 1993). Accordingly, this action was not subject to review under that Executive Order by the Office of Information and Regulatory Affairs (OIRA) of the Office of Management and Budget (OMB).

B. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires preparation of an initial regulatory flexibility analysis for any rule that by law must be proposed for public comment, unless DOE certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. As required by Executive Order 13272, ''Proper Consideration of Small Entities in Agency Rulemaking,'' 67 FR 53461 (August 16, 2002), DOE published procedures and policies on February 19, 2003, to ensure that the potential impacts of its rules on small entities are properly considered during the DOE rulemaking process. 68 FR 7990. DOE has made its procedures and policies available on the Office of the General Counsel's Web site, *http://www.gc.doe.gov.*

DOE reviewed today's final rule under the provisions of the Regulatory Flexibility Act and the policies and procedures published on February 19, 2003. DOE tentatively certified in the December 22, 2008 NOPR that the proposed rule would not have a significant impact on a substantial number of small entities. 73 FR 78232. In the NOPR, DOE made this tentative certification for small electric motors based on the fact that: (1) DOE is not imposing any additional testing requirements or higher accuracy tolerances beyond what is already contained in the industry standards documents incorporated by reference for this equipment (*i.e.,* IEEE Std 114, IEEE Std 112 and CSA C747); (2) DOE is adopting testing requirements that the industry already follows, avoiding any significant increase in testing or compliance costs; and (3) DOE is consistent with current industry test procedures and methodologies, thereby eliminating confusion and any undue burden from determining the efficiency of an electric motor according to two separate test procedures for potentially the same result.

DOE did not receive any comments addressing small business impacts for manufacturers of small electric motors. Thus, DOE reaffirms and certifies that this rule will have no significant economic impact on a substantial number of small entities.

C. Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), a person is not required to respond to a collection of information by a Federal agency unless the collection displays a valid OMB control number. In today's final rule, DOE adopts new test procedures and associated documentation retention and reporting requirements for small electric motors. However, unless and until DOE requires manufacturers of small electric motors to comply with energy conservation standards, a manufacturer would not be required to comply with these record-keeping provisions because of the absence of certification/compliance requirements applicable to the test procedures. Therefore, today's final rule would not impose any new reporting requirements requiring approval by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*

D. National Environmental Policy Act

In this rule, DOE adopts new test procedures that are used to measure and determine the energy efficiency of small electric motors. This rule falls into a class of actions that are categorically excluded from review under the National Environmental Policy Act of 1969, (NEPA) 42 U.S.C. 4321 *et seq.,* and DOE's implementing regulations at 10 CFR part 1021. DOE has determined that this rule is covered under the Categorical Exclusion found in DOE's National Environmental Policy Act regulations at paragraph A.6 of Appendix A to Subpart D, 10 CFR part 1021, which applies to rulemakings that are strictly procedural. Accordingly, neither an environmental assessment nor an environmental impact statement is required.

E. Executive Order 13132

Executive Order 13132, ''Federalism,'' 64 FR 43255 (August 10, 1999), imposes certain requirements on agencies formulating and implementing policies or regulations that preempt State law or that have Federalism implications. The Executive Order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. DOE examined this final rule and determined that it would not have a substantial direct effect on the States, on the

relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, Executive Order 13132 requires no further action.

F. Executive Order 12988

Regarding the review of existing regulations and the promulgation of new regulations, section 3(a) of Executive Order 12988, ''Civil Justice Reform,'' 61 FR 4729 (February 7, 1996), imposes on Federal agencies the general duty to adhere to the following requirements: (1) Eliminate drafting errors and ambiguity; (2) write regulations to minimize litigation; and (3) provide a clear legal standard for affected conduct rather than a general standard and promote simplification and burden reduction. Regarding the review required by section 3(a), section 3(b) of Executive Order 12988 specifically requires, among other things, that Executive agencies make every reasonable effort to ensure that the regulation (1) clearly specifies the preemptive effect, if any; (2) clearly specifies any effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction; (4) specifies the retroactive effect, if any; (5) adequately defines key terms; and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of Executive Order 12988 requires Executive agencies to review regulations in light of applicable standards in sections 3(a) and 3(b) to determine whether they are met or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, this rule meets the relevant standards of Executive Order 12988.

G. Unfunded Mandates Reform Act of 1995

The Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4; UMRA) generally requires Federal agencies to examine closely the impacts of regulatory actions on State, local, and Tribal governments. Subsection 101(5) of title I of that law defines a Federal intergovernmental mandate to include any regulation that would impose upon State, local, or Tribal governments an enforceable duty, except a condition of Federal assistance or a duty arising from participating in a voluntary Federal program. Title II of UMRA requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. For proposed regulatory actions likely to result in a rule that may cause expenditures by State, local, and Tribal governments, in the aggregate, or by the private sector, of $100 million or more (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish estimates of the resulting costs, benefits, and other effects on the national economy. Section 204 of UMRA also requires a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a proposed ''significant intergovernmental mandate.'' On March 18, 1997, DOE published a statement of policy on its process for intergovernmental consultation under UMRA (62 FR 12820) (also available at *http://www.gc.doe.gov.* Today's final rule would establish new test procedures that would be used in measuring the energy efficiency of small electric motors. Today's rule contains neither an intergovernmental mandate, nor a mandate that may result in the expenditure by State, local, and Tribal governments, or by the private sector, of $100 million or more in any year. Accordingly, no assessment or analysis is required under the Unfunded Mandates Reform Act of 1995.

H. Treasury and General Government Appropriations Act, 1999

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. 105–277) requires Federal agencies to issue a Family Policymaking Assessment for any rule that may affect family well-being. Today's rule would not have any impact on the autonomy or integrity of the family as an institution. Accordingly, DOE has concluded that it is unnecessary to prepare a Family Policymaking Assessment.

I. Executive Order 12630

Pursuant to Executive Order 12630, ''Governmental Actions and Interference with Constitutionally Protected Property Rights,'' 53 FR 8859 (March 15, 1988), DOE has determined that this rule would not result in any takings that might require compensation under the Fifth Amendment to the U.S. Constitution.

J. Treasury and General Government Appropriations Act, 2001

The Treasury and General Government Appropriations Act, 2001 (Pub. L. 106–554, codified at 44 U.S.C. 3516 note) provides for agencies to review most disseminations of information to the public under guidelines established by each agency pursuant to general guidelines issued by OMB. OMB's guidelines were published at 67 FR 8452 (February 22, 2002), and DOE's guidelines were published at 67 FR 62446 (October 7, 2002). DOE has reviewed today's notice under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

K. Executive Order 13211

Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use,'' 66 FR 28355 (May 22, 2001), requires Federal agencies to prepare and submit to OMB a Statement of Energy Effects for any proposed significant energy action. A ''significant energy action'' is defined as any action by an agency that promulgated or is expected to lead to promulgation of a final rule, and that (1) is a significant regulatory action under Executive Order 12866, or any successor order; and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (3) is designated by the Administrator of OIRA as a significant energy action. For any proposed significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use should the proposal be implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use. Today's regulatory action is not a significant regulatory action under Executive Order 12866 or any successor order; would not have a significant adverse effect on the supply, distribution, or use of energy; and has not been designated by the Administrator of OIRA as a significant energy action. Therefore, this rule is not a significant energy action. Accordingly, DOE has not prepared a Statement of Energy Effects.

L. Section 32 of the Federal Energy Administration Act of 1974

Under section 301 of the Department of Energy Organization Act (Pub. L. 95–91), DOE must comply with all laws applicable to the former Federal Energy Administration, including section 32 of the Federal Energy Administration Act of 1974 (Pub. L. 93–275), as amended by the Federal Energy Administration Authorization Act of 1977 (Pub. L. 95–70). (15 U.S.C. 788) Section 32 provides that where a proposed rule authorizes or requires use of commercial standards, the notice of proposed rulemaking must inform the public of the use and background of such standards. Section

32(c) also requires DOE to consult with the Department of Justice and the Federal Trade Commission (FTC) concerning the impact of commercial or industry standards on competition.

Certain of the amendments and revisions in this final rule incorporate testing methods contained in the following commercial standards: (1) IEEE Std 114, ''IEEE Standard Test Procedure for Single-Phase Induction Motors''; (2) IEEE Std 112, ''IEEE Standard Test Procedure for Polyphase Induction Motors and Generators''; and CAN/CSA C747, ''Energy Efficiency Test Methods for Single- and Three-Phase Small Motors.'' As stated in the December 22, 2008 NOPR, DOE has evaluated these standards and is unable to conclude whether they fully comply with the requirements of section 32(b) of the Federal Energy Administration Act (*i.e.,* that they were developed in a manner that fully provides for public participation, comment, and review). 73 FR 48054, 48079. DOE has consulted with the Attorney General and the Chairman of the FTC concerning the impact on competition of requiring manufacturers to use the test methods contained in these standards, and neither recommended against incorporation by reference of these standards.

M. Congressional Notification

As required by 5 U.S.C. 801, DOE will report to Congress on the promulgation of today's rule before its effective date. The report will state that it has been determined that the rule is not a ''major rule'' as defined by 5 U.S.C. 801(2).

V. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this final rule.

List of Subjects in 10 CFR Part 431

Administrative practice and procedure, Commercial and industrial equipment, Confidential business information, Energy conservation, Incorporation by reference, Reporting and recordkeeping requirements.

Issued in Washington, DC, on June 29, 2009.

Steven G. Chalk,

Principal Deputy Assistant Secretary, Energy Efficiency and Renewable Energy.

■ For the reasons stated in the preamble, part 431 of chapter II of title 10, Code of Federal Regulations, is amended as set forth below:

PART 431—ENERGY EFFICIENCY PROGRAM FOR CERTAIN COMMERCIAL AND INDUSTRIAL EQUIPMENT

■ 1. The authority citation for part 431 continues to read as follows:

Authority: 42 U.S.C. 6291–6317.

■ 2. Add a new subpart X to part 431 to read as follows:

Subpart X—Small Electric Motors

Sec.

§ 431.441 Purpose and scope.

This subpart contains definitions, test procedures, and energy conservation requirements for small electric motors, pursuant to Part A–1 of Title III of the Energy Policy and Conservation Act, as amended, 42 U.S.C. 6311–6317.

§ 431.442 Definitions.

The following definitions are applicable to this subpart:

Alternative efficiency determination method, or AEDM, means, with respect to a small electric motor, a method of calculating the total power loss and average full-load efficiency.

Average full-load efficiency means the arithmetic mean of the full-load efficiencies of a population of small electric motors of duplicate design, where the full-load efficiency of each motor in the population is the ratio (expressed as a percentage) of the motor's useful power output to its total power input when the motor is operated at its full rated load, rated voltage, and rated frequency.

Basic model means, with respect to a small electric motor, all units of a given type of small electric motor (or class thereof) manufactured by a single manufacturer, and which have the same rating, have electrical characteristics that are essentially identical, and do not have any differing physical or functional characteristics that affect energy consumption or efficiency. For the purpose of this definition, ''rating'' means a combination of the small electric motor's group (*i.e.,* capacitor-start, capacitor-run; capacitor-start, induction-run; or polyphase), horsepower rating (or standard kilowatt equivalent), and number of poles with respect to which § 431.446 prescribes nominal full load efficiency standards.

CAN/CSA means Canadian Standards Association.

DOE or *the Department* means the U.S. Department of Energy.

EPCA means the Energy Policy and Conservation Act, as amended, 42 U.S.C. 6291–6317.

IEC means International Electrotechnical Commission.

IEEE means Institute of Electrical and Electronics Engineers, Inc.

NEMA means National Electrical Manufacturers Association.

Small electric motor means a NEMA general purpose alternating current single-speed induction motor, built in a two-digit frame number series in accordance with NEMA Standards Publication MG1–1987, including IEC metric equivalent motors.

Test Procedures

§ 431.443 Materials incorporated by reference.

(a) *General.* The Department incorporates by reference the following standards into Subpart X of part 431. The Director of the Federal Register has approved the material listed in paragraph (b) of this section for incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Any subsequent amendment to a standard by the standard-setting organization will not affect the DOE test procedures unless and until the DOE amends its test procedures. DOE incorporates the material as it exists on the date of the approval and a notice of any change in the material will be published in the **Federal Register.** All approved material is available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.* Also, this material is available for inspection at U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Program, Sixth Floor, 950 L'Enfant Plaza, SW., Washington, DC 20024, (202) 586–2945, or go to *http://www1.eere.energy.gov/buildings/appliance_standards/.* Standards can be obtained from the sources below.

(b) *CAN/CSA.* Canadian Standards Association, Sales Department, 5060 Spectrum Way, Suite 100, Mississauga,

Ontario, L4W 5N6, Canada, 1–800–463–6727, or go to *http://www.shopcsa.ca/onlinestore/welcome.asp.*

(1) CAN/CSA–C747–94 (''CAN/CSA–C747'') (Reaffirmed 2005), *Energy Efficiency Test Methods for Single- and Three-Phase Small Motors,* IBR approved for § 431.444.

(2) [Reserved]

(c) *IEEE.* Institute of Electrical and Electronics Engineers, Inc., 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855–1331, 1–800–678–IEEE (4333), or go to *http://www.ieee.org/web/publications/home/index.html.*

(1) IEEE Std 112™–2004 (Revision of IEEE Std 112–1996) (''IEEE Std 112''), *IEEE Standard Test Procedure for Polyphase Induction Motors and Generators,* approved February 9, 2004, IBR approved for § 431.444.

(2) IEEE Std 114–2001™ (Revision of IEEE Std 114–1982) (''IEEE Std 114''), *IEEE Standard Test Procedure for Single-Phase Induction Motors,* approved December 6, 2001, IBR approved for § 431.444.

§ 431.444 Test procedures for the measurement of energy efficiency.

(a) *Scope.* Pursuant to section 346(b)(1) of EPCA, this section provides the test procedures for measuring, pursuant to EPCA, the efficiency of small electric motors pursuant to EPCA. (42 U.S.C. 6317(b)(1)) For purposes of this Part 431 and EPCA, the test procedures for measuring the efficiency of small electric motors shall be the test procedures specified in § 431.444(b).

(b) *Testing and Calculations.* Determine the energy efficiency and losses by using one of the following test methods:

(1) Single-phase small electric motors: either IEEE Std 114, (incorporated by reference, *see* § 431.443), or CAN/CSA C747, (incorporated by reference, *see* § 431.443);

(2) Polyphase small electric motors less than or equal to 1 horsepower (0.746 kW): IEEE Std 112 (incorporated by reference, *see* § 431.443), Test Method A; or

(3) Polyphase small electric motors greater than 1 horsepower (0.746 kW): IEEE Std 112 (incorporated by reference, *see* § 431.443), Test Method B.

§ 431.445 Determination of small electric motor efficiency.

(a) *Scope.* When a party determines the energy efficiency of a small electric motor to comply with an obligation imposed on it by or pursuant to Part A–1 of Title III of EPCA, 42 U.S.C. 6311–6317, this section applies.

(b) *Provisions applicable to all small electric motors*—(1) *General requirements.* The average full-load efficiency of each basic model of small electric motor must be determined either by testing in accordance with § 431.444 of this subpart, or by application of an alternative efficiency determination method (AEDM) that meets the requirements of paragraphs (a)(2) and (3) of this section, provided, however, that an AEDM may be used to determine the average full-load efficiency of one or more of a manufacturer's basic models only if the average full-load efficiency of at least five of its other basic models is determined through testing.

(2) *Alternative efficiency determination method.* An AEDM applied to a basic model must be:

(i) Derived from a mathematical model that represents the mechanical and electrical characteristics of that basic model, and

(ii) Based on engineering or statistical analysis, computer simulation or modeling, or other analytic evaluation of performance data.

(3) *Substantiation of an alternative efficiency determination method.* Before an AEDM is used, its accuracy and reliability must be substantiated as follows:

(i) The AEDM must be applied to at least five basic models that have been tested in accordance with § 431.444; and

(ii) The predicted total power loss for each such basic model, calculated by applying the AEDM, must be within plus or minus 10 percent of the mean total power loss determined from the testing of that basic model.

(4) *Subsequent verification of an AEDM.* (i) Each manufacturer that has used an AEDM under this section shall have available for inspection by the Department of Energy records showing the method or methods used; the mathematical model, the engineering or statistical analysis, computer simulation or modeling, and other analytic evaluation of performance data on which the AEDM is based; complete test data, product information, and related information that the manufacturer has generated or acquired pursuant to paragraph (a)(3) of this section; and the calculations used to determine the efficiency and total power losses of each basic model to which the AEDM was applied.

(ii) If requested by the Department, the manufacturer shall conduct simulations to predict the performance of particular basic models of small electric motors specified by the Department, analyses of previous simulations conducted by the manufacturer, sample testing of basic models selected by the Department, or a combination of the foregoing.

(c) *Additional testing requirements*—(1) *Selection of basic models for testing if an AEDM is to be applied.*

(i) A manufacturer must select basic models for testing in accordance with the criteria that follow:

(A) Two of the basic models must be among the five basic models with the highest unit volumes of production by the manufacturer in the prior year, or during the prior 12-month period before the effective date of the energy efficiency standard, whichever is later, and in identifying these five basic models, any small electric motor that does not comply with § 431.446 shall be excluded from consideration;

(B) The basic models should be of different horsepower ratings without duplication;

(C) At least one basic model should be selected from each of the frame number series for the designs of small electric motors for which the AEDM is to be used; and

(D) Each basic model should have the lowest nominal full-load efficiency among the basic models with the same rating (''rating'' as used here has the same meaning as it has in the definition of ''basic model'').

(ii) If it is impossible for a manufacturer to select basic models for testing in accordance with all of these criteria, the criteria shall be given priority in the order in which they are listed. Within the limits imposed by the criteria, basic models shall be selected randomly.

(2) [RESERVED]

Energy Conservation Standards

§ 431.446 Small electric motors energy conservation standards and their effective dates.

[Reserved]

[FR Doc. E9–15795 Filed 7–6–09; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2009–0042; Airspace Docket No. 09–ANM–1]

Modification of Class E Airspace; Montrose, CO

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action will modify Class E airspace at Montrose Regional Airport,