

# Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF ENERGY

### 10 CFR Part 431

[Docket No. EERE-2008-BT-TP-0008]

RIN 1904-AB71

#### Energy Conservation Program: Test Procedures for Electric Motors

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

**ACTION:** Notice of proposed rulemaking and public meeting.

**SUMMARY:** The Department of Energy (DOE) is proposing new test procedures for measuring the efficiency of small electric motors, including both single-phase and polyphase and to update the industry references and clarify the scope of coverage for DOE's existing test procedure for electric motors. With this notice, DOE also announces a public meeting to receive comments on this proposal and the issues presented herein.

**DATES:** DOE will accept comments, data, and information regarding the NOPR until March 9, 2009. See section IV, "Public Participation," of this proposed rule for details. DOE will hold a public meeting in Washington, DC, beginning on Thursday, January 29, 2009, from 9 a.m. to 5 p.m., and continuing the following day if necessary. DOE must receive requests to speak at this public meeting no later than 4 p.m., Thursday, January 15, 2009. DOE must receive a signed original and an electronic copy of statements to be given at the public meeting no later than 4 p.m., Thursday, January 22, 2009.

**ADDRESSES:** The public meeting will be held at the U.S. Department of Energy, Forrestal Building, Room 1E-245, 1000 Independence Avenue, SW., Washington, DC 20585-0121. (Please note that foreign nationals participating in the public meeting are subject to advance security screening procedures. If a foreign national wishes to participate in the workshop, please

inform DOE as soon as possible by contacting Ms. Brenda Edwards at (202) 586-2945 so that the necessary procedures can be completed.)

Any comments submitted must identify the NOPR on Test Procedures for Electric Motors, and provide the docket number EERE-2008-BT-TP-0008 and/or Regulation Identifier Number (RIN) 1904-AB71. Comments may be submitted using any of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow the instructions for submitting comments.

- *E-mail:* [small\\_electric\\_motors\\_tp.rulemaking@ee.doe.gov](mailto:small_electric_motors_tp.rulemaking@ee.doe.gov). Include the docket number EERE-2008-BT-TP-0008 and/or RIN 1904-AB71 in the subject line of the message.

- *Postal Mail:* Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Program, Mailstop EE-2J, 1000 Independence Avenue, SW., Washington, DC 20585-0121. Please submit one signed paper original.

- *Hand Delivery/Courier:* Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Program, 6th Floor, 950 L'Enfant Plaza, SW., Washington, DC 20024. Telephone: (202) 586-2945. Please submit one signed paper original.

If DOE is able to hold this public meeting in conjunction with a public meeting to discuss its preliminary findings in the energy conservation standards rulemaking for small electric motors, then the agenda for this public meeting will include topics relating to both the test procedure and the energy conservation standards rulemakings. The public meeting would start with a discussion of this test procedure notice of proposed rulemaking (NOPR). When that discussion is complete, DOE would immediately begin discussion on the preliminary analyses that DOE completed in advance of a NOPR for the energy conservation standards rulemaking.

For detailed instructions on submitting comments and additional information on the rulemaking process, see section IV, "Public Participation," of this document.

*Docket:* For access to the docket to read background documents or comments received, visit the U.S. Department of Energy, 6th Floor, 950 L'Enfant Plaza, SW., Washington, DC 20024, (202) 586-2945, between 9 a.m.

and 4 p.m., Monday through Friday, except Federal holidays. Please call Ms. Brenda Edwards at (202) 586-2945 for additional information about visiting the Resource Room.

**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](mailto: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](mailto:Michael.Kido@hq.doe.gov).

For information about how to submit or review public comments and how to participate in the public meeting, contact Ms. Brenda Edwards, 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) 586-2945. E-mail: [Brenda.Edwards@ee.doe.gov](mailto:Brenda.Edwards@ee.doe.gov).

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## 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 specific

industrial equipment.<sup>1</sup> (42 U.S.C. 6311–6317) This notice proposes two actions: (1) Creating new test procedures for measuring the efficiency of small electric motors (typically, motors with ratings of ¼ to 3 horsepower (hp) that are built using a two-digit frame number series and are distinguished from electric motors, which are built using a three-digit frame number series at some of the same horsepower ratings), and (2) revising and expanding the scope of DOE’s test procedure for 1–200 hp electric motors to also apply to motors with ratings between 201 and 500 hp. Part A–1 serves as DOE’s authority for these proposed actions.

### B. Background

#### 1. Small Electric Motors

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 to be technologically feasible, economically justified and would result in significant energy savings.<sup>2</sup> 71 FR 38799.

Section 346 of EPCA requires DOE to prescribe testing requirements for those small electric motors for which the Secretary makes a positive determination. (42 U.S.C. 6317(b)(1)) Thus, DOE stated in its determination notice that it will initiate the development of test procedures for certain small electric motors. 71 FR 38807. This notice constitutes DOE’s first action to propose a test method for measuring the energy efficiency of small electric motors under section 346(b)(1) of EPCA. In parallel with developing test procedures for small electric motors, DOE is analyzing what, if any, levels of efficiency would meet the EPCA criteria.

#### 2. Electric Motors

Section 343(a)(5)(A) of EPCA requires that testing procedures for electric motor efficiency shall be the test

<sup>1</sup> This part of Title III of EPCA was originally titled Part C, but was later redesignated Part A–1 after Part B was repealed by Pub. L. 109–58, which resulted in a legislative reorganization of EPCA. Consequently, consumer product requirements are found in Part A and commercial equipment requirements are in Part A–1 of Title III of EPCA.

<sup>2</sup> Single phase small electric motors are rotational machines that operate on single phase electrical power, which refers to a single alternating voltage sinusoidal waveform. Similarly, polyphase small electric motors are also rotational machines but operate on three-phase electrical power, which refers to the sinusoidal waveforms of three supply conductors that are offset from one another by 120 degrees. Examples of applications for these small electric motors include pumps, fans, conveyors and other installations which require low power (i.e., approximately 3 hp and below).

procedures specified in the National Electrical Manufacturers Association (NEMA) Standards Publication MG1–1987, and the Institute of Electrical and Electronics Engineers, Inc. (IEEE) Standard 112 Test Method B for motor efficiency. (42 U.S.C. 6314(a)(5)(A)) DOE codified and adopted the latest revisions of those test methods (as well as test methods based on the Canadian Standards Association (CSA) Standard C390–93, “Energy Efficient Test Methods for Three-Phase Induction Motors”) in a Final Rule published on October 5, 1999. 64 FR 54114.

Section 343(a)(5)(B) of EPCA provides that if the test procedure requirements under section 343(a)(5)(A) are amended, the Secretary must amend the electric motor test procedures to conform to such amended test procedures in the NEMA and IEEE standards, unless the Secretary determines, by rule, that the amended test procedures are not reasonably designed to produce results that reflect energy efficiency, energy use, and estimated operating costs, and would be unduly burdensome to conduct. (42 U.S.C. 6314(a)(5)(B)) NEMA Standards Publication MG1–1987 was most recently updated November 20, 2007, and IEEE Standard 112 was most recently updated in November 2004. Under section 343(a)(5)(B) of EPCA, DOE proposes to update the test procedures in Title 10 of the Code of Federal Regulations, Part 431 (10 CFR Part 431) to incorporate the test conditions contained in the most current versions of these industry test method standards.

## II. Summary of Proposed Rule

First, today’s notice proposes new test procedures for measuring the energy efficiency of certain general purpose, small, single-phase and polyphase electric motors built in a two-digit NEMA frame series. The proposed test procedures for small electric motors are essentially incorporated by reference to IEEE Standard 112, “Test Procedure for Polyphase Induction Motors and Generators,” IEEE Standard 114, “Test Procedure for Single-Phase Motors,” and CAN/CSA Standard C747, “Energy Efficiency for Single- and Three-Phase Small Motors.” Second, it proposes updates to the citations of industry standards that are incorporated by reference under 10 CFR 431.15, which include: NEMA Standards Publication MG1, “Motors and Generators,” IEEE Standard 112, “Test Procedure for Polyphase Induction Motors and Generators,” and CAN/CSA Standard C390, “Energy Efficiency Test Methods for Three-Phase Induction Motors.” Finally, it proposes to update the test

procedures under 10 CFR 431.16 by clarifying that these procedures are applicable to general purpose motors Subtype I and Subtype II, fire pump motors, and NEMA Design B, general purpose electric motors rated more than 200 hp but not greater than 500 hp, as added to EPCA by the Energy Independence and Security Act of 2007 (EISA 2007). All of the proposed revisions discussed below are contained in the proposed regulatory text following the preamble to this notice. DOE seeks comments on all aspects of this proposal.

### III. Discussion

#### A. Small Electric Motors

Small electric motors are general purpose rotating machines that use either single-phase or poly-phase electricity and provide torque to drive applications such as blowers, fans, conveyors and pumps. For the purposes of this rulemaking, DOE evaluates only those small electric motors that are not incorporated into products that are otherwise covered by other Federal regulatory standards. Small motors incorporated into regulated products such as refrigerators or air conditioning systems are not within the scope of this rulemaking. The following discussion provides some of the background and history of DOE's treatment of this product.

On July 10, 2006, DOE published in the **Federal Register** a positive determination that energy conservation standards for small electric motors appeared to be technologically feasible, 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, at the same time, an analysis of potential energy conservation standards levels. On August 10, 2007, DOE published in the **Federal Register** a notice announcing a public meeting on its determination and the availability of the rulemaking Framework Document. In that notice, DOE also separately sought comments addressing the manner in which it should analyze potential energy conservation standards for small electric motors. 72 FR 44990. DOE received one written and several oral comments in response to this notice, all of which are discussed below.

During the public meeting held September 13, 2007, a representative from Emerson Motors spoke on behalf of NEMA's member motor manufacturers. He indicated that IEEE Standard 112 is the test method motor manufacturers would use to measure the efficiency of

polyphase small electric motors. Further, he noted that IEEE Standard 114 for single-phase motors is not an active standard, but there were no major concerns should DOE use it to measure the efficiency of small electric motors. (Emerson, Public Meeting Transcript, No. 1 at p. 16)<sup>3</sup> In written comments, NEMA affirmed that its members use IEEE Standard 112 for measuring the efficiency of polyphase small electric motors and IEEE Standard 114 for measuring the efficiency of single phase small electric motors. (NEMA, No. 2 at p. 2) In view of the above comments, DOE evaluated IEEE Standard 112, IEEE Standard 114, as well as CAN/CSA Standard C747, "Energy Efficiency for Single- and Three-Phase Small Motors," 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. Therefore, DOE proposes to create new Subpart T, "Small Electric Motors," in 10 CFR Part 431, which will set forth definitions, prescribe test procedures, and promulgate energy conservation standards for small electric motors.

EPCA does not have identical requirements for determining the energy efficiency of small electric motors and electric motors (*i.e.*, 1–500 hp). Section 345(c) of EPCA requires that electric motor manufacturers (*i.e.*, not small electric motor manufacturers) "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." (42 U.S.C. 6316(c)) The statutory standards for electric motors are laid out in 42 U.S.C. 6313(b). Further, 10 CFR 431.17(a)(5) allows manufacturers to establish compliance either through a certification program that is nationally recognized, such as CSA, Underwriters Laboratories, Inc., or an accredited laboratory that meets the requirements of 10 CFR 431.18, such as the National Institute of Standards and Technology/

<sup>3</sup> A notation in the form "Emerson, Public Meeting Transcript, No. 1 at p. 16" identifies an oral comment that DOE received during the September 13, 2007, Framework public meeting and which was recorded in the public meeting transcript in the docket for this rulemaking. Likewise, a notation in the form "(NEMA, No. 2 at p. 2)" refers to a written comment that DOE received and included in the docket for this rulemaking (Docket number EERE-2008-BT-TP-0008), maintained in the Resource Room of the Building Technologies Program. Specifically, this footnote refers to a comment made by the National Electrical Manufacturers Association, and recorded on page 2 of document number 2.

National Voluntary Laboratory Accreditation Program (NIST/NVLAP). These certification requirements must be met for "electric motors" covered under EPCA and 10 CFR Part 431, but do not include "small electric motors." Because small electric motors are covered under section 346 of EPCA (42 U.S.C. 6317), the same certification requirements that apply to electric motors do not apply, although DOE may propose such requirements for small electric motors in the future. Consistent with the treatment of other products under section 346 of EPCA, DOE proposes to allow a manufacturer to self-certify the test results for its small electric motors (*i.e.*, not require "independent testing").

In the following section, DOE presents the major sections of the proposed 10 CFR Part 431, Subpart T (new), which would cover certain small electric motors, including definitions, test procedures for measuring efficiency, and an alternative efficiency determination method (AEDM).

#### 1. Definitions Concerning Small Electric Motors

DOE proposes to establish section 431.342, "Definitions," under a new Subpart T of 10 CFR Part 431, and to define the necessary terms applicable to small electric motors, including "alternative efficiency determination method," "average full load efficiency," "basic model," and "small electric motor."

##### a. Alternative Efficiency Determination Method

An AEDM is a means of calculating the total power loss and average full load efficiency of a small electric motor. It is derived from a mathematical model that represents the mechanical and electrical characteristics of a basic model of a small electric motor and is based on engineering or statistical analysis, computer simulation or modeling, or other analytic evaluation of performance data. The accuracy and reliability are substantiated through actual testing of a statistically valid sample of basic models of small motors. The use of an AEDM is intended to alleviate any undue burden from a manufacturer who may otherwise be required to test all of its basic models. The proposed definition for this term is identical to the definition under 10 CFR 431.12, except the component term "electric motor" has been replaced by "small electric motor."

##### b. Average Full Load Efficiency

"Average full load efficiency" refers to the arithmetic average of the full load

efficiencies of a population of small electric motors of duplicate design. It assumes a normal (Gaussian) distribution of efficiencies. The proposed definition for this term is identical to the definition under 10 CFR 431.12, except the component term “electric motor” has been replaced by “small electric motor.”

#### c. Basic Model

DOE proposes to define the term “basic model” for small electric motors in the same manner as it applies to electric motors in 10 CFR 431.12. Basic models of small electric motors are manufactured by a single manufacturer and have the same rating, essentially identical electrical characteristics, and no differing physical or functional characteristics affecting energy consumption or efficiency.<sup>4</sup> The four proposed requirements for a basic model of small electric motor are the same as those for an electric motor. Due to the similarities in construction, manufacture, customer sales and other key aspects of electric motors and small electric motors, DOE believes that constructing a definition for “basic model” of small electric motor around the existing definition of “electric motor” is appropriate. In the nearly ten years since the regulatory standard became effective for 1–200 hp motors, DOE has received fewer than five complaints where a covered motor was alleged to be out of compliance with the regulatory standard. Each case was investigated by DOE and subsequently resolved by the manufacturer’s voluntary removal of the product from the market. For this reason, DOE finds that the definition of “basic model,” as it applies to an electric motor, has proven effective in ensuring that electric motors manufactured, produced, assembled, or imported are in compliance with the effective national energy conservation standards. The proposed definition minimizes the burden for small electric motor manufacturers when determining compliance with an energy conservation standard while ensuring that the energy consumption of these products is accurately captured.

#### d. Small Electric Motor

In today’s NOPR, DOE proposes to codify the statutory definition of “small electric motor” into Subpart T of 10 CFR Part 431. Section 340(13)(G) of EPCA, as amended by EISA 2007 (42 U.S.C.

6311(13)(G)), defines the term “small electric motor” as “a NEMA [National Electrical Manufacturers Association] general purpose alternating-current single-speed induction motor, built in a two-digit frame number series in accordance with NEMA Standards Publication MG1–1987.”

#### 2. Test Procedures for the Measurement of Energy Efficiency

In today’s notice, DOE proposes that a manufacturer measure the energy efficiency of a covered small electric motor according to one of three test methods. Consistent with the choice of test methods presented for electric motors in 10 CFR Part 431, subpart B, appendix B, a manufacturer would be permitted to select either an IEEE or CSA test method that is appropriate for single-phase or polyphase small electric motors. The represented efficiency of a basic model of small electric motor must be based on one of the IEEE test methods (*i.e.*, IEEE Standard 114–2001 or IEEE Standard 112–2004), or the CSA test method (*i.e.*, CAN/CSA Standard C747–94, “Energy Efficiency Test Methods for Single- and Three-Phase Small Motors”).

DOE examined the above test procedures and concluded that each offers clear, consistent, and accurate means of measuring the energy efficiency of small electric motors. Three categories of small electric motors will be subject to the test procedures: single-phase capacitor-start, induction-run (CSIR); single-phase capacitor-start, capacitor-run (CSCR); and polyphase small motors. IEEE Standard 114–2001 applies to CSIR and CSCR small motors, and IEEE Standard 112–2004 applies to polyphase small motors, and CAN/CSA Standard C747–94 applies both to single-phase and polyphase small motors. DOE’s proposal that a manufacturer may test its small motors according to either IEEE Standard 112 or 114, as applicable, is consistent with recommendations from interested parties. (Emerson, Public Meeting Transcript, No. 1 at p. 16; NEMA, No. 2 at p. 2). Moreover, DOE proposes adopting the above IEEE test methods because (1) each represents an approach that is consistent with the existing test methods for electric motors, which have been in effect without issue since November 1999 as part of 10 CFR part 431; (2) they are the most current versions in use by industry and have been periodically updated to reflect the best approaches for measuring and determining the efficiency of small motors; and (3) DOE believes that they will provide accurate and repeatable measurements because they tightly

define tolerances, setup equipment, methods and procedures which manufacturers have developed to fairly compare the performance characteristics of their products.

DOE’s proposal that a manufacturer be allowed to use the CAN/CSA Standard C747–94 test method as an alternative to the IEEE standards is based on two factors: (1) Using the CAN/CSA Standard C747–94 or one of the IEEE standards will result in an accurate and consistent measurement of energy efficiency, and (2) the long-standing North American Free Trade Agreement has established one large market including Canada and the United States, which makes the use of this procedure consistent with that agreement’s purpose to reduce trade barriers while maintaining the integrity of the energy conservation program. Further, 10 CFR Part 431 provides a manufacturer the flexibility to test its electric motors according to CSA Standard C390–93. Therefore, DOE believes adopting a similar approach for small electric motor manufacturers is appropriate.

#### 3. Alternative Efficiency Determination Method

Section 343(a)(2) of EPCA requires that the test procedures prescribed for electric motors by DOE be “reasonably designed to produce test results which reflect energy efficiency,” yet not be “unduly burdensome” to conduct. (42 U.S.C. 6314(a)(2)) Manufacturers produce large numbers of basic models of small electric motors, numbering in the thousands. These large numbers are due in part to the frequency with which units are modified because of material price fluctuations, which often necessitates the development of a new basic model. Testing the efficiency of an electric motor, unit by unit, typically requires ten to twelve hours (per unit) to complete and can cost as much as \$2,000.00 per test. Further, DOE understands that many small electric motor designs are generated by proprietary software programs that have been refined over the years through engineering analysis and actual testing.

In view of the substantial number of basic models of small electric motors that would be subject to an individual testing requirement for each basic model, DOE is concerned that a manufacturer of small electric motors would likely face a substantial burden in conducting these tests to demonstrate compliance with the regulatory standard. To reduce this testing burden while meeting the energy conservation goals of EPCA, DOE proposes to adopt procedures that would allow a

<sup>4</sup> Note: 10 CFR 431.12 defines the term “rating” for a basic model as a combination of the motor’s group, horsepower rating (or standard kilowatt equivalent), and number of poles for which an efficiency rating applies.

manufacturer to certify compliance by using an AEDM and a statistically meaningful sampling procedure for selecting test specimens that would be consistent with the existing requirements in 10 CFR 431.17 that currently apply to electric motors.

An AEDM is a predictive mathematical model that has been developed from engineering analyses of design data and substantiated by actual testing. It represents the energy consumption characteristics of one or more basic models. Before using an AEDM, a manufacturer must determine its accuracy and reliability through actual testing of a statistically valid sample of at least five basic models. For each basic model, the manufacturer must test a sample size of no fewer than five units selected at random according to the criteria proposed that would appear in a new section 431.345, "Determination of Small Electric Motor Efficiency." After confirming the AEDM's accuracy, the manufacturer may use that AEDM to determine the efficiencies of other basic models of small electric motors, without further testing.

To confirm its accuracy, DOE requires that the basic models tested to validate the AEDM have a predicted total power loss that falls within ten percent of the mean total power loss determined from the actual testing. The total power loss for each basic model is calculated by applying the AEDM. This tolerance level is consistent with the current AEDM accuracy and reliability requirements for electric motors. See 10 CFR 431.17. DOE understands that the power loss predicted from an AEDM will differ from the power loss predicted from testing sample units of a basic model, due to natural manufacturing and material variability of the actual units within each model sample. The magnitude of such differences depends on the degree of variability, quantified as the standard deviation, and the sample size. As the number of units in each sample and the number of samples increases, the difference between the calculated and measured values should decrease, but as a practical matter it never disappears.

DOE invites comments on its proposal to allow manufacturers of small electric motors to use an AEDM, and the requirements for a manufacturer to substantiate the accuracy of its AEDM, including the number of basic models to be tested, and the accuracy of the predictive capabilities of the AEDM relative to actual testing.

#### 4. Energy Conservation Standards and Their Effective Dates.

In a separate rulemaking, scheduled to be completed in 2010, DOE is considering establishing energy conservation standards for small electric motors. In today's NOPR, DOE proposes to create a new section 431.346, entitled "Energy Conservation Standards and Their Effective Dates," and reserve it for small electric motor standards. For information about the energy conservation standards rulemaking for small electric motors, please visit DOE's Web page at [http://www1.eere.energy.gov/buildings/appliance\\_standards/commercial/small\\_electric\\_motors.html](http://www1.eere.energy.gov/buildings/appliance_standards/commercial/small_electric_motors.html).

#### B. Definitions

EISA 2007 amended EPCA to prescribe energy conservation standards for specific consumer products and commercial equipment, including electric motors. In today's NOPR, DOE proposes new or amended definitions to address updates to the test procedures for measuring the efficiency of electric motors. The updates include changing citations, correcting cross-referencing errors in 10 CFR Part 431, and proposing definitions to clarify the application of the test procedures for electric motors and any associated energy conservation standards. Each revision is addressed below and DOE requests comments on each.

##### 1. Definitions in Subpart A—General Provisions

###### a. Definition of "Act"

DOE proposes to revise the definition of the term "Act" in 10 CFR 431.2. In 10 CFR Part 431, revised January 1, 2008, the term "Act" means "the Energy Policy and Conservation Act of 1975, as amended, 42 U.S.C. 6291–6316." The correct U.S. Code citation for this term should include 42 U.S.C. 6317, which encompasses distribution transformers, high-intensity discharge lamps and small electric motors. DOE believes this correction is necessary to eliminate any potential confusion that may result from the omission of section 6317, particularly because it addresses small electric motors. The revised definition of the term "Act" can be found in 10 CFR 431.2 of the proposed regulation section of today's notice.

###### b. Definition of "Covered Equipment"

DOE proposes to amend the definition of the term "covered equipment" in 10 CFR 431.2. The term "covered equipment" is used throughout 10 CFR Part 431 for specific commercial and industrial equipment that are regulated

under 10 CFR Part 431. The definition of "covered equipment" identifies each type of equipment that is considered covered and provides a citation to the definition of that equipment. In view of its determination that energy conservation standards for certain small electric motors are technologically feasible and economically justified, and would result in significant energy savings, DOE proposes to amend the definition of "covered equipment" to include small electric motors. (71 FR 38799 (July 10, 2006))

As addressed in section III.A.1.d of today's notice, DOE proposes to codify the statutory definition of a "small electric motor" in a new section 431.342. The citation to this section would be cross-referenced within the definition of "covered equipment" at 10 CFR 431.2. This proposed revision to the definition of "covered equipment" is necessary to inform interested parties that small electric motors are regulated equipment under 10 CFR Part 431. The revised definition of "covered equipment" can be found in 10 CFR 431.2 of the proposed regulation section of today's notice.

##### c. Definition of "EPCA"

DOE proposes to revise the definition of the term "EPCA" in 10 CFR 431.2. In 10 CFR Part 431, revised January 1, 2008, the term "EPCA" means "the Energy Policy and Conservation Act, as amended, 42 U.S.C. 6291–6316." Consistent with its revision to the meaning of the term "Act" in 10 CFR 431.2, DOE proposes to correct the U.S. Code citation from "42 U.S.C. 6316" to "42 U.S.C. 6317." DOE believes this correction to the United States Code citations is necessary to eliminate any potential confusion that may result from the omission of section 6317, particularly because section 6317 contains provisions affecting small electric motors. The revised definition of EPCA can be found in 10 CFR 431.2 of the proposed regulation section of today's notice.

##### 2. Definitions in Subpart B—Electric Motors

###### a. Introductory Sentence to the Definitions Section

On October 18, 2005, DOE published a technical amendment final rule that codified the prescriptive standards contained in the Energy Policy Act of 2005 (Pub. L. 109–58). The final rule contained standards and direction for developing test procedures for several new products, which were subsequently codified in 10 CFR Part 431. In that final rule, DOE redesignated subparts K, L,

and M (which address Enforcement, General Provisions, and Petitions, respectively) as subparts U, V, and W. 70 FR 60416–17. However, the introductory sentence in 10 CFR 431.12 continues to refer to old subparts K, L, and M. Therefore, DOE proposes to revise the introductory language to redirect the references to subparts U, V, and W, respectively. DOE believes that this editorial correction is necessary to eliminate the potential for confusion.

#### b. Definition of “Accreditation”

DOE proposes to revise the definition of the term “accreditation,” in 10 CFR 431.12, by updating its citations to industry test procedures.<sup>5</sup> Currently, the definition of “accreditation” refers to “Test Method B of Institute of Electrical and Electronics Engineers (IEEE) Standard 112–1996, Test Procedure for Polyphase Induction Motors and Generators,” and “Test Method (1) of CSA Standard C390–93, Energy Efficient Test Methods for Three-Phase Induction Motors.” In today’s NOPR, DOE proposes to update the industry standards incorporated by reference to IEEE Standard 112–2004 and CAN/CSA Standard C390–98(R2005). To ensure consistency, DOE also proposes to make corresponding updates to the industry standard citations in the definition of “accreditation.” The revised definition of the term “accreditation” would be inserted into 10 CFR 431.12.

#### c. Definition of “Basic Model”

With respect to an electric motor, the term “basic model” is defined in 10 CFR 431.12 in relevant part, as “one of the 113 combinations of an electric motor’s horsepower (or standard kilowatt equivalent), number of poles, and open or enclosed construction.” Section 313 of EISA 2007 amended sections 340(13) and 342(b) of EPCA (42 U.S.C. 6311(13) and 6313(b), respectively) to add terms, definitions, and energy conservation standards relevant to electric motors, including “General Purpose Electric Motor (Subtype II)” and “NEMA Design B, General Purpose Electric Motors.” This action amended the scope of covered electric motors and the applicable energy conservation standards to encompass more than the original 113 combinations of horsepower, number of poles, and type of construction. To account for this expanded scope that EISA 2007 introduced, DOE proposes to revise the

definition of “basic model” in 10 CFR 431.12 by replacing the phrase “means one of the 113 combinations of” with the phrase “means a combination of” because there are now more than 113 combinations covered and regulated. DOE believes that this revision will eliminate any potential confusion, while preserving the requirement that an electric motor basic model be rated according to a discrete combination of horsepower, number of poles, and type of construction. Since the proposed definition retains the same requirements of a basic model that are present in the existing definition, this proposed change will have no impact on the scope of covered electric motors, and will not affect the measurement of efficiency or be unduly burdensome to manufacturers.

#### d. Definition of “Electric Motor”

Section 313(a)(2) of EISA 2007 amended section 340(13)(A) of EPCA (42 U.S.C. 6311(13)(A)) by replacing the term and definition of “electric motor” with two new electric motor categories—“General Purpose Electric Motor (Subtype I)” and “General Purpose Electric Motor (Subtype II).” DOE plans to issue a technical amendment final rule codifying these EISA 2007 amendments into 10 CFR 431.12. This means that the term “electric motor,” which frequently appears throughout various subparts of 10 CFR Part 431, is left undefined. DOE is concerned that this may cause confusion about which electric motors are required to comply with mandatory test procedures and energy conservation standards.

Section 313(a)(2) also established a new EPCA section 340(13) (42 U.S.C. 6311(13)(A)) and definitions for “general purpose electric motor (subtype I)” and “general purpose electric motor (subtype II).” Further, EISA 2007 section 313(b)(1)(B) amended EPCA section 342(b) (42 U.S.C. 6313(b)) by inserting the terms “fire pump motors” and “NEMA Design B, general purpose electric motors.” In view of the EISA 2007 directives and to eliminate confusion, DOE proposes to insert a definition into Section 431.12 for “electric motor” that aggregates the four types of electric motors now covered by EPCA. DOE believes that adopting such a definition will make clear that the test procedures for electric motors apply to the four types of motors and will not alter the scope of covered electric motors EISA 2007 created. The proposed definition of “electric motor” will not have any impact on the actual measurement of efficiency nor will it be unduly burdensome to manufacturers,

because it simply combines the four types of covered motors into one term.

#### e. Definition of “Fire Pump Motor”

Section 313(b)(1) of EISA 2007 amended section 342(b) of EPCA (42 U.S.C. 6313(b)) by prescribing energy conservation standards for fire pump motors. However, EISA 2007 did not define the term “fire pump motor.” To address this gap, DOE investigated what characteristics constitute a fire pump motor and, in the process, examined manufacturers’ product literature and nationally accepted industry standards documents, including Underwriter Laboratories (UL) Standard 1004A, “Fire Pump Motors,” and the National Fire Protection Association (NFPA) 20, “Standard for the Installation of Stationary Pumps for Fire Protection.” DOE could not locate any one source that provided a broadly applicable definition of “fire pump motor.” Manufacturers’ literature provided specifications for the fire pump motors each had for sale, often advertising specific types of motors for particular fire protection applications or product designations unique to that manufacturer. The UL Standard 1004A sets forth safety standards for NEMA Design B motors used in fire pump applications, in accordance with NFPA 20, but does not explicitly define the term “fire pump motor.” The NFPA Standard 20 sets forth performance requirements for motors intended for use in fire pump applications, but does not explicitly define the term “fire pump motor.”

Absent a clear industry definition of “fire pump motor,” DOE proposes to add a definition to 10 CFR 431.12 that would be based primarily on the scope of UL Standard 1004A–2001, paragraph 1.1, which reads: “This Standard covers Design B polyphase motors, as defined in NEMA MG1, “Motors and Generators,” rated 500 hp (373 kW) or less, 600 volts or less, that are intended for use in accordance with NFPA 20, “Standard for the Installation of Centrifugal Fire Pumps.” DOE’s proposal makes two modifications to this definition. First, DOE proposes to insert an approval/publication date, i.e., NFPA 20–2007, to make clear which version is required. Second, DOE proposes revising the referenced title of the 2007 NFPA Standard 20 in the UL paragraph from “Standard for the Installation of Centrifugal Fire Pumps” to the 2007 title, “Standard for the Installation of Stationary Pumps for Fire Protection.”

<sup>5</sup> In section II.A.5 of the preamble to the October 5, 1999 Final Rule for Electric Motors, DOE noted that “accreditation would generally have to be based on the version of the test method currently incorporated into the DOE regulation.” 64 FR 54119.

#### f. Definition of "General Purpose Motor"

Currently, 10 CFR 431.12 defines the term "general purpose motor" in part by incorporating by reference NEMA MG1–1993, paragraphs 14.02, "Usual Service Conditions," and 14.03, "Unusual Service Conditions." Since the promulgation of this definition, NEMA MG1–1993 has been updated to NEMA MG1–2006, which renumbered these paragraphs to 14.2 and 14.3, respectively. DOE compared the two paragraphs in NEMA MG1–1993 to the updated NEMA MG1–2006 and concluded that the 1993 and 2006 definitions of "Usual Service Conditions" and "Unusual Service Conditions" are identical, except for the paragraph numbers. Therefore, DOE proposes to update the references in 10 CFR 431.12 to ensure consistency with current industry standards and eliminate any potential for confusion. This proposed change will have no impact on the scope of motors covered, or measurement of efficiency, or be unduly burdensome to manufacturers.

#### g. Definition of "General Purpose Electric Motor (Subtype I)"

Section 313(a)(2) of EISA 2007 amended section 340(13) of EPCA (42 U.S.C. 6311(13)(A)) to add the term "general purpose electric motor (subtype I)." Accordingly, DOE plans to publish a technical amendment final rule amending 10 CFR 431.12 to codify this EISA 2007 amendment. In view of the above definition of "general purpose motor," the definition of "general purpose electric motor" also incorporates by reference paragraphs 14.02 and 14.03 of NEMA Standards Publication MG1–1993. For the same reasons discussed above for general purpose motors, DOE proposes to update the references in 10 CFR 431.12 to "paragraph 14.02" and "paragraph 14.03" in NEMA Standards Publication MG1–1993 to "paragraph 14.2" and "paragraph 14.3" in NEMA Standards Publication MG1–2006. This proposed change will have no impact on the scope of motors covered, or measurement of efficiency, or be unduly burdensome to manufacturers, because the content of the MG1–2006 paragraphs is the same as those in MG1–1993.

#### h. Definition of "NEMA Design B General Purpose Electric Motor"

Section 313(b)(1)(B) of EISA 2007 amended section 342(b) of EPCA (42 U.S.C. 6313(b)) to prescribe energy conservation standards for NEMA Design B general purpose electric motors with a power rating of more than

200 hp but not greater than 500 hp. EISA 2007 does not otherwise define the term "NEMA Design B general purpose electric motor." Therefore, DOE is proposing to insert a definition for these electric motors based on NEMA Standards Publication MG1–2006, paragraph 1.19.1.2, "Design B," which reads as follows:

A Design B motor is a squirrel-cage motor designed to withstand full-voltage starting, developing locked-rotor, breakdown, and pull-up torques adequate for general application as specified in 12.38, 12.39, and 12.40, drawing locked-rotor current not to exceed the values shown in paragraphs 12.35.3 for 60 hertz and 12.35.3 for 50 hertz, and having a slip at rated load of less than 5 percent. Motors with 10 or more poles shall be permitted to have slip slightly greater than 5 percent.<sup>6</sup>

DOE plans to publish a technical amendment final rule that amends 10 CFR 431.12 codifying the EISA 2007 energy conservation standard for NEMA Design B general purpose electric motors. In this NOPR, DOE proposes to amend 10 CFR 431.12 by adopting the NEMA definition of "NEMA Design B general purpose electric motor" from MG1–2006, with the following changes: (1) Removing the reference to 50 hertz and corresponding performance characteristics, because the EISA 2007-prescribed efficiency standards (NEMA MG–1 (2006) Table 12–11) cover only 60 hertz motors; (2) limiting the maximum slip requirement to motors with fewer than 10 poles, because EISA 2007-prescribed standards cover 2-, 4-, 6-, and 8-pole motors; and (3) correcting the referenced locked-rotor current paragraphs from "12.35.3" to "12.35.1," because there is no "12.35.3" in MG1–2006 and the table under paragraph 12.35.1 contains the maximum currents associated with a locked-rotor.

#### i. Definition of "Nominal Full Load Efficiency"

DOE proposes to revise the definition of "nominal full load efficiency" in 10 CFR 431.12, by updating the reference to "Column A of Table 12–8, NEMA Standards Publication MG1–1993," which prescribes the efficiency levels of covered electric motors. DOE compared

Table 12–8 (1993) with its updated version, Table 12–10 in NEMA MG1–2006, and found that the tables have identical efficiency levels, but the reference number had changed from "12–8" to "12–10") and the titles "Column A Nominal Efficiency" and "Column B Minimum Efficiency Based on 20% Loss Difference" were modified to simply read "Nominal Efficiency" and "Minimum Efficiency Based on 20% Loss Difference." Therefore, DOE proposes to update the definition of "nominal full load efficiency" in 10 CFR 431.12, by changing "Column A of Table 12–8, NEMA Standards Publication MG1–1993" to read: "Nominal Efficiency" column of Table 12–10, NEMA Standards Publication MG1–2006." In DOE's view, this proposed change will eliminate confusion over the reference in 10 CFR 431.12 and otherwise have no impact on the measurement of efficiency or burden on manufacturers, because the substantive content (*i.e.*, efficiency values) of the table is not affected.

#### C. Referenced Documents

Section 431.15 of 10 CFR Part 431, "Materials incorporated by reference," is based on the test procedures and standards for motors that were in effect as of October 5, 1999. In today's NOPR, DOE proposes to revise 10 CFR 431.15 by deleting cited material that is no longer needed or has otherwise been updated and inserting references to the current industry standards.

1. NEMA Standards Publication MG1. In view of the EISA 2007 amendments to EPCA, DOE proposes to incorporate by reference the pertinent provisions from NEMA Standards Publication MG1–2006 in place of the current reference to NEMA Standards Publication MG1–1993. For example, EISA 2007 313(a)(2) deleted reference to the definition of "electric motor" in EPCA section 340(13)(A). In turn, DOE's technical amendment final rule deleted the term "electric motor" in 10 CFR 431.12. Due to this change, many sections in NEMA Standards Publication MG1–1993 are no longer used or referenced either in the test procedures prescribed at 10 CFR 431.16 or the energy conservation standards at 10 CFR 431.25. There are four updated citations and one new citation, which are addressed below.

Paragraph (2) of 10 CFR Part 431, Subpart B, Appendix B refers to "NEMA MG1–1993 with Revisions 1 through 4, paragraph 12.58.1." While NEMA MG1–1993 and MG1–2006 both contain a paragraph 12.58.1, the content of these paragraphs differ slightly. The 2006 version extends the covered motor

<sup>6</sup> Design B motors account for most of the induction motors sold and are used in a wide variety of applications including industrial processes and commercial equipment. These polyphase motors are often referred to as general purpose motors, and have 5 percent or less of slip. (The term "slip" refers to the difference in the speed of the rotor relative to that of the synchronous speed. In actual operation, rotor speed always lags the magnetic field's speed, allowing the rotor bars to cut magnetic lines of force and produce useful torque. This speed difference is called slip speed. Slip also increases with load and is necessary for torque production.)



horsepower ratings that are tested by dynamometer, as described in IEEE Standard 112 (Method B), from an upper limit of 400 hp in 1993 (NEMA MG1–1993 Revision 4) to 500 hp in 2006. Therefore, DOE proposes to incorporate by reference the paragraph from MG1–2006, because the current industry test procedures for motor efficiency are applicable through 500 hp. This change is also consistent with changes introduced by EISA 2007, which provided nominal full load efficiency standards for specific general purpose electric motors rated up to 500 hp (*i.e.*, NEMA Design B general purpose electric motors).

Paragraph 12.58.2 of NEMA Standards Publication MG1–1993 was not incorporated by reference in 10 CFR 431.15, but is included in references to the labeling requirements contained in 10 CFR 431.31(a)(2). Therefore, to avoid any confusion, DOE proposes to incorporate by reference paragraph 12.58.2 into 10 CFR 431.15.

Table 12–8 in NEMA Standards Publication MG1–1993 is incorporated by reference under 10 CFR 431.15(b)(1)(iv). As discussed above in section III.B.2.i, Table 12–8 (1993) is now Table 12–10 (2006), and retains the same efficiency values as Table 12–8. Therefore, DOE proposes to update this reference to Table 12–10 from NEMA MG1–2006.

As discussed above in section III.B.2.f, NEMA Standards Publication MG1–1993, paragraphs 14.02 and 14.03 became paragraphs 14.2 and 14.3 in MG1–2006. In addition to updating the definition of “general purpose motor” under 10 CFR 431.12 and its reference to “usual” and “unusual service conditions,” DOE proposes to update 10 CFR 431.15(b)(v) by deleting paragraphs 14.02 and 14.03 and incorporating by reference the updated citations to paragraphs 14.2 and 14.3.

Section 431.15(b)(2) of 10 CFR 431.15 incorporates by reference IEEE Standard 112–1996 Test Method B. Although IEEE Standard 112–2004 Test Method B is the current standard (see section III.G), the test method is the same in both documents. Consequently, DOE believes the 1996 version is obsolete and proposes to incorporate by reference the 2004 version. Similarly, DOE proposes to update the reference to CSA Standard C390–93, “Energy Efficiency Test Methods for Three-Phase Induction Motors” at 10 CFR 431.15(b)(3) to the current “CSA Standard C390–98 (R2005).”

In addition to the aforementioned updates to the referenced industry standards documents, DOE proposes to delete certain industry standards that

were previously incorporated by reference in 10 CFR 431.15, but are no longer used or referenced in DOE’s proposed test procedure or energy conservation standard. In particular, DOE proposes to delete those standards that were required elements under 10 CFR 431.12, “electric motor,” but were stricken by EISA 2007, including International Electrotechnical Commission Standards 60034–1 (1996), 60050–411 (1996), 60072–1 (1991), and 60034–12 (1991).

In 10 CFR 431.15(c), DOE provides locations where the standards incorporated by reference are available for inspection. The first is the National Archives and Records Administration (NARA) and the second is DOE. DOE proposes to update the citation for the Web site associated with NARA and to modify the DOE docket information to reflect today’s proposal.

In 10 CFR 431.15(d), DOE identifies the organizations from which the public may purchase or otherwise obtain standards incorporated by reference in 10 CFR Part 431, subpart B, for electric motors. DOE proposes to update the list of organizations and directions for purchasing the standards. First, NEMA Standards Publication MG1–2006 may be purchased directly through NEMA, the originator of the MG1 standard. Second, DOE updated some of the address details for obtaining IEEE standards. Third, DOE updated the address and telephone number for obtaining CAN/CSA Standard C390–98(R2005). For each vendor, DOE inserted Web site information that provides another way to purchase standards or, in some cases, download standards.

In 10 CFR 431.15(e), DOE identifies standards documents that are not referenced in the test procedures, listed for “information and guidance” concerning laboratory accreditation and certification programs. Although they are not used in the test procedures for electric motors, they form the basis for the nationally recognized laboratory accreditation and certification programs that are essential to compliance certification under 10 CFR 431.36(a)(1) and (2). Further, 10 CFR 431.19 and 10 CFR 431.20 provide explicit reference to these documents as part of the underpinning to DOE’s recognition of accreditation bodies and certification programs for electric motor efficiency. Because many have been superseded by newer versions, DOE proposes to update those references. The current list of references includes (1) NVLAP Handbook 150, “Procedures and General Requirements,” February 2006; (2) NVLAP Handbook 150–10,

“Efficiency of Electric Motors,” February 2007; (3) ISO/IEC Guide 17025:2005, “General requirements for the competence of calibration and testing laboratories;” (4) ISO Guide 27:1983, “Guidelines for corrective action to be taken by a certification body in the event of either misapplication of its mark of conformity to a product, or products which bear the mark of the certification body being found to subject persons or property to risk;” (5) ISO/IEC Guide 28:2004 “Conformity assessment—Guidance on a third-party certification system for products;” ISO/IEC Guide 58, “Calibration and testing laboratory accreditation systems—General requirements for operation and recognition;” and ISO/IEC Guide 65:1996, “General requirements for bodies operating product certification systems.” In addition, DOE proposes to add ISO/IEC Guide 60:2004, “Conformity assessment—Code of good practice,” that recommends good practices for all elements of conformity assessment, including certification programs.

#### *D. Determination of Efficiency*

In 10 CFR 431.17, “Determination of Efficiency,” DOE proposes three updates to the introductory paragraph to reflect changes to referenced sections that have moved. The proposed updates will not affect the measure of efficiency determined by manufacturers, but will correct outdated cross references that exist in the introductory paragraph.

First, in 10 CFR 431.17, DOE proposes to correct the reference to EPCA in 10 CFR 431.17 from “Part C” to “Part A–1,” because this section on “Certain Industrial Equipment” was moved by EPACT 2005 (see discussion in section I.A above). Second, DOE proposes to expand the reference to “42 U.S.C. 6311–6316” to include section 6317, which includes small motors. Third, DOE proposes to correct the cross reference to section “431.192,” where 10 CFR 431.17 reads, “This section does not apply to enforcement testing conducted pursuant to section 431.192,” to read “431.383.” The prior section 431.192 was moved to section 431.383 but this cross-reference was not updated. (See 70 FR 60416 (October 18, 2005))

#### *E. Laboratory Accreditation and Labeling*

##### *1. Accreditation References*

In 10 CFR 431.18(a), DOE establishes certain requirements for the accreditation of any laboratory to test motors for compliance with the efficiency standards in 10 CFR Part 431.



In particular, 10 CFR 431.18(b) describes NIST/NVLAP and the requirements for laboratory accreditation that is granted on the basis of conformance to criteria published in 15 CFR 285, *The National Voluntary Laboratory Accreditation Program*, NIST Handbook 150, *Procedures and General Requirements*, and NIST Handbook 150–10, *Efficiency of Electric Motors*. Where 10 CFR 431.18(b) refers to “NIST Handbook 150–10, August 1995,” DOE proposes to update the reference to “NIST Handbook 150–10, February 2007” to ensure that the most recent requirements for NIST/NVLAP accreditation are incorporated into 10 CFR Part 431 and laboratories continue to test motors according to the most current industry procedures. This change will eliminate any potential confusion and not impose any undue burden on testing laboratories.

## 2. Test Method References

DOE proposes to update the test procedures and methodologies referred to in 10 CFR 431.19(b)(4) and (c)(4), and in 10 CFR 431.20(b)(4) and (c)(4) to reflect current industry test procedures that are proposed elsewhere in today’s notice. Where DOE refers to “IEEE Standard 112–1996 Test Method B” and “CSA Standard C390–93 Test Method (1),” DOE proposes to update the references to “IEEE Standard 112–2004 Test Method B” and “CAN/CSA Standard C390–98(R2005) Test Method (1),” respectively. Likewise, DOE proposes to update the same references in appendix A to subpart B of 10 CFR Part 431. As discussed in section III.G, DOE examined the IEEE and CSA test procedures and concluded that the proposed updates are consistent with the previous methodologies and will not otherwise affect the measurement of efficiency.

## 3. Labeling

The labeling requirements for electric motors in 10 CFR 431.31(a)(2) refer to the term “nominal full load efficiency” and the terms specified in paragraph 12.58.2 of NEMA MG1–1993. DOE proposes to update this reference to the current document, NEMA MG1–2006. DOE examined and compared the language and requirements of paragraph 12.58.2 in NEMA MG1–1993 (Revision 4) with NEMA MG1–2006 (Revision 1) and concluded that they are essentially equivalent, *i.e.*, there were no modifications to the text which affect the electric motors covered in this rulemaking.<sup>7</sup> Therefore, DOE proposes

to update to the referenced industry standard. DOE believes that this change maintains consistency in labeling motors for efficiency, will eliminate confusion over labeling requirements in 10 CFR 431.31(a)(2), and not be unduly burdensome to manufacturers or private labelers.

## F. Policy Statement on Covered Electric Motors

Appendix A to subpart B of 10 CFR Part 431 contains a “Policy Statement for Electric Motors Covered Under the Energy Policy and Conservation Act,” (Policy Statement) which clarifies the scope of electric motors covered under EPCA. The Policy Statement provides interpretation and guidance as to which types of motors are covered under EPCA, explains how DOE would apply the EPCA definitions that relate to motors, and how DOE would apply energy conservation standards to electric motors that are components in certain equipment.

For the reasons expressed below, DOE proposes to delete the contents of appendix A to subpart B, and replace the existing policy statement with the term “[Reserved].” DOE proposes this revision to accommodate the changes to section 340(13)(A) of EPCA, as amended by EISA 2007, and to maintain the outline structure of this subpart should DOE decide in the future to clarify by rule the scope of covered electric motors.

The amendments in section 313 of EISA 2007 affected the interpretative guidance provided by 10 CFR Part 431, subpart B, appendix A in two ways by (1) covering certain motors that were not previously covered and (2) striking the definition of “electric motor.” EISA 2007 extended the upper limit for electric motors from 200 hp to 500 hp and broadened the scope to potentially cover a variety of motors that were not previously covered. Consequently, any policy statement, clarification, or interpretive guidance about what constitutes an “electric motor,” as defined under new section 340(13) of EPCA, as amended by EISA 2007, will require careful examination of other provisions in EISA 2007, related provisions in EPCA, and potential references to NEMA Standards Publication MG1–2006 with Revision 1 (2007). DOE understands that 10 CFR Part 431, subpart B, appendix A was written to eliminate confusion and provide manufacturers some guidance

as to what motors were considered “electric motors” and therefore subject to energy efficiency regulations. EISA 2007 made changes by deleting the definition of “electric motor” and replacing it with the definitions of “general purpose electric motor (subtype I),” “general purpose electric motor (subtype II)” and setting forth efficiency standards for “fire pump motors” and “NEMA Design B, general purpose electric motors.”

Second, as discussed above, section 313(a)(2) of EISA 2007 deleted the definition of the term “electric motor” from section 340(13)(A) of EPCA (42 U.S.C. 6311(13)(A)), removing much of the basis for the interpretive guidance in appendix A to subpart B. Therefore, DOE no longer believes that retaining appendix A to subpart B of 10 CFR Part 431 is warranted, and deleting appendix A is necessary to avoid confusion. Furthermore, as discussed earlier, DOE plans to delete the term “electric motor” and its definition in 10 CFR 431.12 as part of a technical amendment final rule that will codify the EISA 2007 standards and directives, including those for electric motors.

## G. Updates to the Electric Motor Test Method for Measuring Efficiency

Section 343(a)(5)(A) of EPCA requires that the test procedures for electric motors shall be the test procedures specified in NEMA MG1–1987 and IEEE Standard 112 Test Method B for motor efficiency, as in effect on the date of the enactment of the EPACT 1992 amendments (42 U.S.C. 6314(a)(5)(A)). Section 343(a)(5)(B) of EPCA (42 U.S.C. 6314(a)(5)(B)) states that if the test procedures in NEMA MG1 and IEEE Standard 112 are amended, the Secretary of Energy is required to revise the regulatory test procedures for electric motors to conform to such amendments, unless the Secretary determines by rule, supported by clear and convincing evidence, that to do so would not meet the requirements for test procedures described in sections 343(a)(2) and (3) of EPCA.

NEMA MG1 was most recently revised and published as NEMA MG1–2006 Revision 1 and IEEE Standard 112–1996 was revised and is now IEEE Standard 112–2004. Similarly CSA Standard C390–93 was revised and is now CAN/CSA Standard C390–98 (R2005). DOE believes the revised test procedures are consistent with the intent of EPCA section 343(a)(2) in that they are designed to produce test results which reflect energy efficiency, energy use, and estimated operating costs during a representative average use cycle, and are not unduly burdensome

<sup>7</sup> DOE notes that the only difference between paragraph 12.58.2 in the 1993 and 2006 editions of

NEMA MG1 is the absence of Design E motors in the 2006 edition. Because EPCA does not cover NEMA Design E motors, this change has no impact on manufacturers of covered motors or this rulemaking.

to conduct. Moreover, each one is an update of the test procedures already incorporated into 10 CFR 431.17 and is consistent with current industry practice. Therefore, in today's notice, DOE proposes to prescribe test procedures based on NEMA MG1–2006 with Revision 1, IEEE Standard 112–2004 Test Method B, and CAN/CSA Standard C390–98 (R2005) Test Method (1).

DOE proposes to update the test procedures for electric motors which are incorporated by reference in 10 CFR Part 431, subpart B, appendix B, namely, NEMA MG1–1993, IEEE Standard 112–1996, with the exceptions listed in appendix B to subpart B, section 2.(2)(i) through (ix) but including the correction to the calculation at item (28) in section 10.2 Form B–Test Method B issued by IEEE on January 20, 1998, and CSA Standard C390–93 Test Method (1). All three standards documents have been updated and DOE proposes to update the incorporations by reference in appendix B to subpart B to be consistent and eliminate confusion over which test procedures to use for compliance with the EPCA efficiency standards. DOE has concluded that the proposed revisions will not change or bias the energy efficiency value of an electric motor, whether measured according to the old or current procedures. For the reasons previously noted, these proposed revisions would not increase the burden on manufacturers.

#### 1. References to National Electrical Manufacturers Association Standard MG1

DOE proposes to update the opening statement in 10 CFR Part 431, subpart B, appendix B, section 2, to incorporate by reference “paragraph 12.58.1” of NEMA MG1–2006, which now extends the upper horsepower limit of covered motors from 400 to 500 hp. DOE believes that extending the horsepower range to 500 hp is appropriate because it is consistent with industry practice, the IEEE and CSA test procedures referenced in today's NOPR apply to motors with up to 500 hp, and NEMA Design B general purpose electric motors with ratings of up to 500 hp are now covered under EPCA through EISA 2007 section 313(b)(1)(B).

DOE compared the 1993 and 2006 versions of NEMA MG1 and concluded that the procedures and requirements under MG1–12.58.1 are the same in both documents. Therefore, DOE believes that the proposed update to the opening statement in section 2 of appendix B, will not impact the measurement of efficiency of an electric motor. Further,

DOE believes that because this update is consistent with current industry practice, it will not be unduly burdensome or otherwise have any adverse impact on manufacturers.

#### 2. References to CAN/Canadian Standards Association Standard C390

DOE proposes to update the reference to CSA Standard C390–93 Test Method (1) in 10 CFR Part 431, subpart B, appendix B, section 2, to the current version—CAN/CSA Standard C390–98 (R2005).

DOE performed a paragraph-by-paragraph, side-by-side examination of the methodologies and measurements used both in the CSA Standard C390 Test Method (1) 1993 and CAN/CSA Standard C390–98 (R2005) Test Method (1). DOE concluded that there were no substantive changes that would affect the measurements, accuracy, or determination of energy efficiency. Instead, DOE found only minor editorial rephrasing of sentences or slight changes in wording for clarification. DOE did not find any revisions to the procedural steps, test methodologies, accuracy requirements, or equations used in determining the energy efficiency of a motor. Upon completing its examination, DOE concluded that Test Method (1) in CAN/CSA Standard C390–98 (R2005), “Energy Efficiency Test Methods for Three-Phase Induction Motors,” prescribes the same test as CSA Standard C390–93, and use of either would result in the same measured efficiency. Therefore, DOE proposes to update 10 CFR Part 431, subpart B, appendix B, section 2, and incorporate by reference CAN/CSA Standard C390–98 (R2005) Test Method (1). DOE believes that this update will eliminate any confusion over which test procedure to use when testing electric motors for energy efficiency, and that it will not otherwise be unduly burdensome to manufacturers. Instead, this update is consistent with current industry practice. Nevertheless, DOE invites interested parties to comment on any potential impact that may result from this proposed update.

#### 3. References to Institute of Electrical and Electronics Engineers Standard 112

DOE proposes to update the reference to IEEE Standard 112–1996 in 10 CFR Part 431, subpart B, appendix B, section 2, to the current version of IEEE–112, issued in 2004. As with CAN/CSA Standard C390–98 (R2005) Test Method (1) above, DOE conducted a paragraph-by-paragraph, side-by-side examination of IEEE Standard 112–1996 and the procedural corrections set forth in section 2, paragraph (2) and IEEE

Standard 112–2004. DOE found that some of the procedural corrections to the 1996 edition contained in paragraph (2) had already been incorporated into the 2004 edition, while other provisions or requirements prescribed in paragraph (2) had not. Notwithstanding, DOE proposes to retain some of the procedural corrections that are currently set forth in 10 CFR Part 431, subpart B, appendix B, section 2, in the manner addressed below.

First, section 2, paragraph (2)(i) addresses the manner in which to determine the specified temperature used in making resistance corrections and references section 5.1.1 of IEEE Standard 112–1996. Section 5.1.1 of IEEE Standard 112–1996 reads, in part, “The specified temperature shall be determined by one of the following, which are listed in order of preference.” Section 2 paragraph (2)(i) of appendix B revised the referenced IEEE sentence to read, “The specified temperature used in making resistance corrections should be determined by one of the following (Test Method B only allows the use of (a) or (b)), which are listed in order of preference.” When comparing IEEE Standard 112–1996 with IEEE Standard 112–2004, DOE found that the sentence had been moved to subclause 3.3.2 of IEEE Standard 112–2004 and is now identical to section 2 paragraph (2)(i) of appendix B. Therefore, DOE proposes to revise paragraph 2(i) to refer to subclause 3.3.2 of IEEE Standard 112–2004.

Second, section 2 paragraphs (2)(ii), (iii), and (iv) concern no-load testing, termination of testing, and a modification to “Form B–Method B,” respectively. During its examination of IEEE Standard 112–2004, DOE found that all three paragraphs in paragraphs (2)(ii)–(iv) had been incorporated into IEEE Standard 112–2004. Consequently, the three provisions are no longer required as an explicit part of appendix B but can be incorporated by reference to the applicable provisions of IEEE Standard 112–2004. Accordingly, DOE proposes to delete them from appendix B and instead to reference them as part of current IEEE Standard 112–2004 for the following reasons:

(1) Section 2, paragraph (2)(ii), which concerns no-load testing, is no longer required as an explicit correction to IEEE Standard 112–1996, because IEEE Standard 112–2004 now sets forth the same requirements for no-load testing in section 6.4.1.4 with cross references to sections 5.5 and 5.5.1.<sup>8</sup> While some of

<sup>8</sup> The correction in the IEEE Standard 112–1996 applied to subclause 6.4.1.3 on page 17 of the

the referenced section numbers have changed, the requirements remain the same. Therefore, DOE proposes to delete this correction and incorporate by reference the applicable provision in IEEE Standard 112–2004.

(2) Section 2, paragraph (2)(iii), which concerns termination of the temperature test, is no longer required because of modifications to IEEE Standard 112–1996, which are now part of IEEE Standard 112–2004. In particular, section 5.8.4.4 of IEEE Standard 112–2004, reads: “For continuous rated machines, the temperature test shall continue until there is a 1 °C or less change in temperature rise above the ambient temperature over a 30-minute period.” DOE proposes to delete the correction and instead, incorporate by reference the applicable provisions in IEEE Standard 112–2004.

(3) Section 2, paragraph (2)(iv), which concerns recording the “temperature for resistance correction” at the top of section 10.2 “Form B–Method B” in IEEE Standard 112–1996, is no longer required as an explicit correction in 10 CFR Part 431. Whereas, section 2 paragraph (2)(iv) of appendix B reads, in part, “Temperature for Resistance Correction ( $t_s$ ) = \_\_\_\_ °C (See 6.4.3.2),” an industry modification updated the requirement and incorporated it into section 9.4 “Form B–Method B” of IEEE Standard 112–2004, which now reads, “Total Stator Temperature,  $t_s$ , \_\_\_\_ (7) \_\_\_\_ °C in a 25 °C Ambient.” In view of the update, DOE proposes to incorporate by reference the applicable provisions in IEEE Standard 112–2004 into appendix B.

Third, section 2, paragraph (2)(v) concerns the values for  $t_s$  and  $t_r$  at the bottom of “Form B–Method B” in IEEE Standard 112–1996 and updating the “1996” cross-reference from “subclause 8.3” to read “subclause 4.4.1” in IEEE Standard 112–2004. Although the methods of determining temperatures (thermometer, embedded detector, winding resistance, and local temperature detector) in the 2004 “subclause 4.4.1” are presented in a different order from that in the 1996 “subclause 8.3,” both incorporate the same four methods and relevant cross references. Further, where section 2, paragraph (2)(v) refers to “the bottom of 10.2 Form B,” such reference should instead refer to “9.4 Form B–Method B” in IEEE Standard 112–2004. Therefore, DOE proposes to incorporate by

reference the above provisions in IEEE Standard 112–2004 into appendix B.

Fourth, section 2 paragraph (2)(vi) concerns a footnote in “Form B–Method B” of IEEE Standard 112–1996 and the value for “temperature for resistance correction ( $t_r$ ).” Section 2, paragraph (2)(vi) provides explicit guidance about temperature resistance correction in IEEE Standard 112–1996 and the same provision has been incorporated into IEEE Standard 112–2004. Therefore, DOE proposes to delete the correction in section 2 paragraph, (2)(vi) and incorporate by reference the applicable provision in IEEE Standard 112–2004.

Fifth, similar to the correction discussed above, section 2, paragraph (2)(vii) concerns the torque constant “ $k$ ” that is defined both in Newton meters and pound-feet in item (22) of “Form B–Method B” of IEEE Standard 112–1996. This constant was corrected to read “ $k_2$ ” in section 2, paragraph (2)(vii) and subsequently became incorporated into section 5.6.1 of IEEE Standard 112–2004. In view of the updated definition(s) for torque constant in IEEE Standard 112–2004, DOE proposes to delete this correction from section 2 paragraph(2)(vii).

Sixth, section 2, paragraph (2)(viii) concerns updating cross-references. Where section 2, paragraph (2)(viii) reads, “Page 48, at the end of item (27), the following additional reference applies: ‘See 6.4.3.2.’,” the updated reference is “Page 62,” the item number is “(19),” and the form is “9.5 Form B2–Method B Calculations” in IEEE Standard 112–2004. DOE proposes to incorporate by reference the above updates into appendix B.

Seventh, section 2, paragraph (2)(ix) concerns the value of corrected slip in revolutions per minute on page 48, item (29) of “Form B–Method B,” and the applicable cross reference to temperature correction in section 6.4.3.3 of IEEE Standard 112–1996. DOE proposes to delete the correction at section 2, paragraph (2)(ix) because the same correction, including the cross-referenced correction, have been incorporated into item (36) of “9.5 Form B2–Method B” of IEEE Standard 112–2004.

In sum, after examination and comparison of IEEE Standard 112–1996 and IEEE Standard 112–2004, DOE concluded that the majority of the corrections were incorporated or addressed in the updated IEEE Standard 112–2004. These changes make several corrections that are currently in paragraph (2) unnecessary and DOE is proposing to remove them. Those corrections that DOE is proposing to retain will have their references

updated. In this way, DOE intends to retain the same accuracy, test methodology, and clarification as intended under appendix B to subpart B of 10 CFR Part 431. Moreover, DOE believes that, in all the above updates from IEEE Standard 112–1996 to IEEE Standard 112–2004, there will be no change in the measured energy efficiency of an electric motor. DOE believes that the updates are consistent with current industry practice, will eliminate confusion, and will not be unduly burdensome to manufacturers.

#### IV. Public Participation

##### A. Attendance at Public Meeting

The time, date, and location of the public meeting are listed in the **DATES** and **ADDRESSES** sections at the beginning of this NOPR. To attend the public meeting, please notify Ms. Brenda Edwards at (202) 586–2945. As explained in the **ADDRESSES** section, foreign nationals visiting DOE Headquarters are subject to advance security screening procedures.

##### B. Procedure for Submitting Requests to Speak

Any person who has an interest in the topics addressed in this notice, or who is a representative of a group or class of persons that has an interest in these issues, may request an opportunity to make an oral presentation at the public meeting. Such persons may hand deliver requests to speak to the address shown in the **ADDRESSES** section at the beginning of this notice between 9 a.m. and 4 p.m., Monday through Friday, except Federal holidays. Requests may also be sent by mail or e-mail to: Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Program, 6th Floor, 950 L’Enfant Plaza, SW., Washington, DC 20024, or [Brenda.Edwards@ee.doe.gov](mailto:Brenda.Edwards@ee.doe.gov). Persons who wish to speak should include in their request a computer diskette or compact disc in WordPerfect, Microsoft Word, portable document format (PDF), or American Standard Code for Information Interchange (ASCII) text file format that briefly describes the nature of their interest in this rulemaking and the topics they wish to discuss. This person should also provide a daytime telephone number where he or she can be reached. DOE requests that those persons who are scheduled to speak submit a copy of their statements at least two weeks prior to the public meeting. DOE may permit any person who cannot supply an advance copy of this statement to participate if that person has made alternative arrangements with the Building

standard, and required the cross-referencing of sections 5.3 and 5.3.3 in the standard for the approach testing technicians should follow when separating core loss from friction and windage loss. The updated section numbers in IEEE standard 112–2004 are 6.4.1.4, 5.5, and 5.5.1, respectively.

Technologies Program in advance. When necessary, the request to give an oral presentation should ask for such alternative arrangements.

### C. Conduct of Public Meeting

DOE will designate a DOE official to preside at the public meeting and may also employ a professional facilitator to aid discussion. The public meeting will be conducted in an informal conference style. The meeting will not be a judicial or evidentiary public hearing, but DOE will conduct it in accordance with 5 U.S.C. 553 and section 336 of EPCA (42 U.S.C. 6306). There shall be no discussion of proprietary information, costs or prices, market share, or other commercial matters regulated by U.S. antitrust laws.

DOE reserves the right to schedule the order of presentations and to establish the procedures governing the conduct of the public meeting. A court reporter will record the proceedings and prepare a transcript.

At the public meeting, DOE will provide an opportunity for interested parties to present summaries of any comments they submitted to DOE before the public meeting, and encourage all interested parties to share their views on issues affecting this rulemaking. Each participant may present a prepared general statement (within time limits determined by DOE) before the discussion of particular topics. Participants may comment on any general statements. After the completion of all prepared statements, participants may clarify their statements and comment on statements made by others. Participants should be prepared to answer questions from DOE and other participants. DOE representatives may also ask questions about other matters relevant to this rulemaking. The official conducting the public meeting will accept additional comments or questions from those attending as time permits. The presiding official will announce any further procedural rules or modification of procedures needed for the proper conduct of the public meeting.

DOE will make the entire record of this proposed rulemaking, including the transcript from the public meeting, available for inspection at the U.S. Department of Energy, 6th Floor, 950 L'Enfant Plaza, SW., Washington, DC 20024, (202) 586-9127, between 9 a.m. and 4 p.m., Monday through Friday, except Federal holidays. Anyone may purchase a copy of the transcript from the transcribing reporter.

### D. Submission of Comments

DOE will accept comments, data, and information regarding this notice, the proceeding of the public meeting, or any aspect of the rulemaking no later than the date provided at the beginning of this notice. Comments, data, and information submitted to DOE's e-mail address for this rulemaking should be provided in WordPerfect, Microsoft Word, PDF, or text (ASCII) file format. Interested parties should avoid the use of special characters or any form of encryption, and wherever possible, comments should include the electronic signature of the author. Absent an electronic signature, comments submitted electronically must be followed and authenticated by submitting a signed original paper document to the address provided at the beginning of this notice. Comments, data, and information submitted to DOE by mail or hand delivery/courier should include one signed original paper copy. No telefacsimiles (faxes) will be accepted.

According to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit two copies: One copy of the document including all the information believed to be confidential, and one copy of the document with the information believed to be confidential deleted. DOE will make its own determination as to the confidential status of the information and treat it according to its determination.

Factors of interest to DOE when evaluating requests to treat submitted information as confidential include (1) a description of the items, (2) whether and why such items are customarily treated as confidential within the industry, (3) whether the information is generally known or available from public sources, (4) whether the information has previously been made available to others without obligation concerning its confidentiality, (5) an explanation of the competitive injury to the submitting person which would result from public disclosure, (6) a date after which such information might no longer be considered confidential, and (7) why disclosure of the information would be contrary to the public interest.

After the public meeting and the expiration of the period for submission of written statements, DOE will begin conducting the analyses as discussed at the public meeting and reviewing the comments received.

### E. Issues on Which the Department of Energy Seeks Comment

Comments are welcome on all aspects of this rulemaking. However, DOE is particularly interested in receiving comments and views of interested parties concerning the following issues:

#### 1. Test Procedure for Small Electric Motors

DOE invites comment on its proposed test procedure for small electric motors, which is based on IEEE Standard 114-2001 and IEEE Standard 112-2004. See section III.A for details.

#### 2. Alternative Test Procedure for Small Electric Motors

DOE invites comment on its proposal whether to allow a manufacturer to use the CAN/CSA Standard C747-94 as an alternative to the IEEE Standards 112 and 114. DOE may reserve the option of promulgating CAN/CSA Standard C747-94 in the final rule of this test procedure, based on stakeholder comment. See section III.A for details.

#### 3. Alternative Efficiency Determination Method for Small Electric Motors

DOE invites comment on the proposed use of an AEDM for small electric motors, including the requirements for a manufacturer to substantiate its AEDM, the number of basic models and units to be tested, and the accuracy of the predictive capabilities of the AEDM relative to actual testing. See section III.A.3 for details.

#### 4. Definition of "Electric Motor"

DOE invites comments on its proposed definition of "electric motor," which brings together the four types of electric motors now covered under EPCA: "general purpose electric motors (subtype I);" "fire pump motors;" "general purpose electric motors (subtype II);" and "NEMA Design B, general purpose electric motors." DOE's proposed definition is intended to clarify that all four types of electric motor are covered and could be subject to the updated test procedure proposed in today's notice. See section III.B.2 for details.

#### 5. Definition of "Fire Pump Motor"

DOE invites comment on its proposed definition of a fire pump motor, which is based on the UL-1004A scope of applicability statement, with a few modifications. One of these changes is to define a fire pump motor as having an upper limit of 200 hp. See section III.B.2 for details.

#### 6. Definition of “NEMA Design B, General Purpose Electric Motor”

DOE invites comment on its proposed definition of “NEMA Design B, general purpose electric motor,” which makes minor modifications to the NEMA Standards Publication MG1–2006 definition—namely, eliminating the 50 Hertz provision and not specifying the percentage slip at rated load for motors with 10 or more poles. See section III.B.2 for details.

#### 7. Updates to Electric Motor Test Procedure

DOE invites comment on its proposed updates to the industry citations contained in the proposed test procedure for electric motors (*i.e.*, updating the procedure to NEMA Standard MG1–2006, IEEE Standard 112–2004, and CAN/CSA Standard C390–98(R2005). See sections III.C through III.G for details.

### V. Procedural Issues and Regulatory Review

#### A. Review Under Executive Order 12866

This proposed rule is not a “significant regulatory action” under section 3(f)(1) of Executive Order 12866, “Regulatory Planning and Review.” 58 FR 51735 (October 4, 1993). Accordingly, OMB did not review this document.

#### B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*, as amended by the Small Business Regulatory Enforcement Fairness Act of 1996) requires preparation of an initial regulatory flexibility analysis for any rule that by law must be proposed for public comment, unless the agency certifies that the rule, if promulgated, will have no significant economic impact on a substantial number of small entities. A regulatory flexibility analysis examines the impact of the rule on small entities and considers alternative ways of reducing negative impacts. Also, 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 at: <http://www.gc.doe.gov>.

EPCA, as amended by the Energy Policy Act of 1992 (EPACT 1992),

establishes energy conservation standards and test procedures for commercial and industrial electric motors. (42 U.S.C. 6291–6317). Whereas EPCA section 343(a)(5)(A), 42 U.S.C. 6314(a)(5)(A), requires that testing procedures for motor efficiency shall be the test procedures in NEMA Standards Publication MG1 and the IEEE Standard 112 Test Method B for motor efficiency, as in effect on October 24, 1992, DOE prescribed such test procedures at 64 FR 54114 (October 5, 1999). In today’s NOPR, DOE proposes to update the test procedures to be consistent with the most current industry test procedures. In addition, EPCA, as amended by EISA 2007, expanded the scope of covered electric motors by prescribing energy conservation standards for “general purpose electric motors (subtype I);” “fire pump motors;” “general purpose electric motors (subtype II);” and “NEMA Design B, general purpose electric motors” with a power rating of more than 200 hp, but not greater than 500 hp. In today’s NOPR, DOE is proposing that its test procedures in appendix B to subpart B of Part 431 be applicable to all four of these types of electric motors.

In addition, EPCA, as amended, 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)). The Secretary issued a positive determination for certain small electric motors on July 10, 2006. 71 FR 38799. In today’s NOPR, DOE proposes a test procedure that a manufacturer would use to test and rate the energy efficiency of its small electric motors.

DOE reviewed today’s proposed rule under the provisions of the Regulatory Flexibility Act and the policies and procedures published on February 19, 2003. The proposed rule contains two parts that warrant discussion: Updates to the existing electric motor test procedures in 10 CFR Part 431, subpart B, appendix B and the proposed new test procedures for small electric motors.

DOE examined whether the existing compliance costs already borne by manufacturers based on the proposed revisions to 10 CFR Part 431, subpart B, appendix B for electric motors would change in any way due to today’s NOPR. DOE is not imposing any additional testing requirements or higher accuracy tolerances beyond what is already contained in the updated industry

standards documents incorporated by reference (*i.e.*, IEEE Standard 112–2004 Test Method B, and CAN/CSA Standard C390–98(R2005) Test Method (1)). Similarly, for small electric motors, 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 Standard 114–2001, IEEE Standard 112–2004, and CSA Standard C747–94). Because the Department is proposing to adopt those requirements that the industry already follows, DOE does not find that the revisions proposed in this document would result in any significant increase in testing or compliance costs, or otherwise be unduly burdensome.

Moreover, as DOE developed the proposed revisions to the current test procedures, it sought to make them consistent with current industry test procedures and methodologies, and thereby eliminate 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 addresses this matter in today’s NOPR. After taking these circumstances into account, DOE believes that this rulemaking would not impose a significant impact on a substantial number of small businesses that manufacture electric motors. Accordingly, DOE has not prepared a regulatory flexibility analysis for the proposed revisions to 10 CFR Part 431, subpart B, appendix B in today’s proposed rule.

In view of these circumstances, a Regulatory Flexibility Act analysis is not required for the test procedure being proposed today. The Department’s certification and supporting statement for the factual basis will be provided to the Chief Counsel for Advocacy of the Small Business Administration pursuant to the requirements of 5 U.S.C. 605(b).

#### C. Review Under the Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995 (44 U.S.C. 3500 *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 NOPR, DOE proposes test procedures and associated documentation retention and reporting requirements for small electric motors. Unless DOE requires manufacturers of small electric motors to comply with energy conservation standards, however, a manufacturer would not be required to comply with

these record-keeping provisions because of the absence of certification/compliance requirements applicable to the proposed test procedures. Therefore, for small electric motors, today's notice of proposed rulemaking would not impose any new reporting requirements requiring approval by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*

DOE is not proposing any additional reporting and/or record-keeping requirements for 1–200 hp electric motors beyond those that are already in place in 10 CFR 431.17(a)(4)(ii), 431.36, 431.382(a)(3), and 431.385(a)(4). Therefore, today's NOPR would not impose any new or additional reporting requirements requiring clearance under the Paperwork Reduction Act for this group of motors.

EISA 2007 amended EPCA to establish energy conservation standards for 201–500 hp electric motors and other newly covered motors. When these standards take effect on December 19, 2010, manufacturers will be required to comply with the record-keeping provisions in today's proposed rule. As a result, this notice contains certain record-keeping requirements that must be approved by OMB, pursuant to the Paperwork Reduction Act, before manufacturers can be required to comply with them. In particular, section 431.17 would require a manufacturer of a covered motor to keep and maintain records about its alternative efficiency determination methods and make them available to DOE for inspection. Pursuant to the Paperwork Reduction Act, DOE will issue a subsequent public notice seeking comments on the record-keeping requirements in today's proposed rule. Thereafter, and in view of any comments received, DOE will submit the proposed collection of information to OMB for approval, pursuant to 44 U.S.C. 3507.

#### *D. Review Under the National Environmental Policy Act*

In this notice, DOE proposes new and amended test procedures that are used to measure and determine the energy efficiency of certain types of electric motors. This proposed 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. In particular, today's proposed rule is covered by Categorical Exclusion A5, for rulemakings that interpret or amend an existing rule without changing the environmental effect, as set forth in DOE's NEPA regulations in appendix A to subpart D

of 10 CFR Part 1021. Today's proposed rule will not affect the amount, quality, or distribution of energy usage, and, therefore, will not result in any environmental impacts. Accordingly, neither an environmental assessment nor an environmental impact statement is required.

#### *E. Review Under 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. The executive order also requires agencies to have an accountable process to ensure meaningful and timely input by State and local officials in developing regulatory policies that have Federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process it will follow in developing such regulations. 65 FR 13735. DOE examined this proposed rule and determined that it does 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. Review Under Executive Order 12988*

With respect to 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 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. 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; (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 rulemaking meets the relevant standards of Executive Order 12988.

#### *G. Review Under the Unfunded Mandates Reform Act of 1995*

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) (Pub. L. 104–4, codified at 2 U.S.C. 1501 *et seq.*) generally requires Federal agencies to examine closely the impacts of regulatory actions on State, local, or tribal governments. Subsection 101(5) of title I of that law defines a Federal intergovernmental mandate to include a 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 that law requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and tribal governments, in the aggregate, or the private sector, other than to the extent such actions merely incorporate requirements specifically set forth in a statute. Section 202 of the title requires a Federal agency to perform a detailed assessment of the anticipated costs and benefits of any rule that includes a Federal mandate that may result in costs to State, local, or tribal governments or the private sector of \$100 million or more in any one year (adjusted annually for inflation). (2 U.S.C. 1532(a) and (b)) Section 204 of that title requires each agency that proposed a rule containing a significant Federal intergovernmental mandate to develop an effective process for obtaining meaningful and timely input by elected officers of State, local, and Tribal governments. (2 U.S.C. 1534) 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 proposed rule would establish new and amended test procedures that would be used in measuring the energy efficiency of electric motors. The proposed rule would not result in the expenditure of \$100 million or more in any year. Accordingly, no assessment or analysis is required under the UMRA.

*H. Review Under the 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 proposed rule to amend DOE test procedures 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. Review Under Executive Order 12630*

Pursuant to Executive Order 12630, "Governmental Actions and Interference with Constitutionally Protected Property Rights," 53 FR 8859 (March 18, 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. Review Under the Treasury and General Government Appropriations Act, 2001*

Section 515 of 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 information quality guidelines established by each agency under 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 proposed rule under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

*K. Review Under 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 a final rule 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 reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use. Because this rulemaking is not expected to be a significant regulatory action under E.O. 12866; would not have a significant adverse effect on the supply, distribution, or use of energy; and has not been designated a significant energy action by the Administrator of OIRA, DOE has determined that this rule is not a significant energy action. Accordingly, DOE has not prepared a Statement of Energy Effects for this rulemaking.

*L. Review Under 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 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 NOPR must inform the public of the use and background of such standards. In addition, section 32(c) requires DOE to consult with the Department of Justice (DOJ) and the Federal Trade Commission (FTC) concerning the impact of the commercial or industry standards on competition.

The rule proposed in this notice incorporates testing methods contained in the following commercial standards: (1) IEEE Standard 112-2004, (2) IEEE Standard 114-2001, (3) CAN/CSA Standard C390-98 (R2005), and (4) CAN/CSA Standard C747-94. DOE has evaluated these revised 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). DOE will consult with the Attorney General and the Chairman of the FTC about the impact of these test procedures on competition.

**VI. Approval of the Office of the Secretary**

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

**List of Subjects in 10 CFR Part 431**

Administrative practice and procedure, Energy conservation, Reporting and recordkeeping requirements.

Issued in Washington, DC, on December 11, 2008.

**David E. Rodgers,**

*Deputy Assistant Secretary for Energy Efficiency, Office of Technology Development Energy Efficiency and Renewable Energy.*

For the reasons stated in the preamble, DOE proposes to amend 10 CFR part 431 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. Section 431.2 of subpart A is amended by revising the definitions of "Act", "Covered equipment" and "EPCA" to read as follows:

**§ 431.2 Definitions.**

\* \* \* \* \*

*Act* means the Energy Policy and Conservation Act of 1975, as amended, 42 U.S.C. 6291-6317.

\* \* \* \* \*

*Covered equipment* means any electric motor, as defined in § 431.12; commercial heating, ventilating, and air conditioning, and water heating product (HVAC & WH product), as defined in § 431.172; commercial refrigerator, freezer, or refrigerator-freezer, as defined in § 431.62; automatic commercial ice maker, as defined in § 431.132; commercial clothes washer, as defined in § 431.152; distribution transformer, as defined in § 431.192; illuminated exit sign, as defined in § 431.202; traffic signal module or pedestrian module, as defined in § 431.222; unit heater, as defined in § 431.242; commercial prerinse spray valve, as defined in § 431.262; mercury vapor lamp ballast, as defined in § 431.282; refrigerated bottled or canned beverage vending machine, as defined in § 431.292; metal halide ballast, as defined in § 431.322; or small electric motor, as defined in § 431.342.

\* \* \* \* \*

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

\* \* \* \* \*

3. Section 431.12 of subpart B is amended by:

- a. Revising the introductory text;
- b. Revising the definitions of "Accreditation," "Basic model,"



“General purpose motor,” “General purpose electric motor (subtype I),” and “Nominal full load efficiency”; and

c. Adding in alphabetical order, new definitions for “Electric motor,” “Fire pump motor” and “NEMA Design B, general purpose electric motor”.

The revisions and additions read as follows:

#### § 431.12 Definitions.

The following definitions apply for purposes of this subpart, and of subparts U through W of this part. Any words or terms not defined in this section or elsewhere in this part shall be defined as provided in section 340 of the Act.

*Accreditation* means recognition by an accreditation body that a laboratory is competent to test the efficiency of electric motors according to the scope and procedures given in Test Method B of Institute of Electrical and Electronics Engineers (IEEE) Standard 112–2004, *Test Procedure for Polyphase Induction Motors and Generators*, and Test Method (1) of Canadian Standards Association (CAN/CSA) Standard C390–98(R2005), *Energy Efficiency Test Methods for Three-Phase Induction Motors*. (Incorporated by reference, see § 431.15)

\* \* \* \* \*

*Basic model* means, with respect to an electric motor, 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. For the purpose of this definition, “rating” means a combination of an electric motor’s horsepower (or standard kilowatt equivalent), number of poles, and open or enclosed construction, with respect to which § 431.25 prescribes nominal full load efficiency standards.

\* \* \* \* \*

*Electric motor* means any of the following four types of motors: A general purpose electric motor (subtype I), a fire pump motor, a general purpose electric motor (subtype II), or a NEMA Design B general purpose electric motor.

\* \* \* \* \*

*Fire pump motor* means a Design B polyphase motor, as defined in NEMA MG1–2006, rated 500 horsepower (373 kW) or less, 600 volts or less, and that is intended for use in accordance with the National Fire Protection Association (NFPA) Standard 20–2007, “Standard for the Installation of Stationary Pumps for Fire Protection.”

*General purpose motor* means any motor which is designed in standard ratings with either:

(1) Standard operating characteristics and standard mechanical construction for use under usual service conditions, such as those specified in NEMA Standards Publication MG1–2006, paragraph 14.2, “Usual Service Conditions,” (incorporated by reference, see § 431.15) and without restriction to a particular application or type of application; or

(2) Standard operating characteristics or standard mechanical construction for use under unusual service conditions, such as those specified in NEMA Standards Publication MG1–2006, paragraph 14.3, “Unusual Service Conditions,” (incorporated by reference, see § 431.15) or for a particular type of application, and which can be used in most general purpose applications.

*General purpose electric motor (subtype I)* means any motor which is designed in standard ratings with either:

(1) Standard operating characteristics and standard mechanical construction for use under usual service conditions, such as those specified NEMA Standards Publication MG1–2006 Rev. 1, paragraph 14.2, “Usual Service Conditions,” (incorporated by reference, see § 431.15) and without restriction to a particular application or type of application; or

(2) Standard operating characteristics or standard mechanical construction for use under unusual service conditions, such as those specified in NEMA Standards Publication MG1–2006 Rev. 1, paragraph 14.3, “Unusual Service Conditions,” (incorporated by reference, see § 431.15) or for a particular type of application, and which can be used in most general purpose applications.

\* \* \* \* \*

*NEMA Design B, general purpose electric motor* means a squirrel-cage motor designed to withstand full-voltage starting, developing locked-rotor, breakdown, and pull-up torques adequate for general application as specified in sections 12.38, 12.39 and 12.40, respectively, of NEMA Standards Publication MG1–2006, drawing locked-rotor current not to exceed the values shown in MG1–12.35.1 for 60 hertz motors, and having a slip at rated load of less than 5 percent for motors with fewer than 10 poles.

*Nominal full load efficiency* means, with respect to an electric motor, a representative value of efficiency selected from the “Nominal Efficiency” column of Table 12–10, NEMA Standards Publication MG1–2006 Rev. 1, (Incorporated by reference, see

§ 431.15), that is not greater than the average full load efficiency of a population of motors of the same design.

\* \* \* \* \*

4. Section 431.15 is amended by revising paragraphs (b), (c), (d), and (e) to read as follows:

#### § 431.15 Materials incorporated by reference.

\* \* \* \* \*

(b) *List of standards incorporated by reference.* (1) The following provisions of National Electrical Manufacturers Association Standards Publication MG1–2006, *Motors and Generators*, with Revision 1, IBR approved for §§ 431.12; 431.31 and appendix B to subpart B of part 431:

(i) Section II, *Small (Fractional) and Medium (Integral) Machines, Part 12, Tests and Performance—AC and DC Motors*, paragraphs 12.58.1 and 12.58.2, and Table 12–10, IBR approved for § 431.12; and

(ii) Section II, *Small (Fractional) and Medium (Integral) Machines, Part 14, Application Data—AC and DC Small and Medium Machines*, paragraphs 14.2 and 14.3, IBR approved for § 431.12.

(2) Institute of Electrical and Electronics Engineers, Inc., Standard 112–2004, *IEEE Standard Test Procedure for Polyphase Induction Motors and Generators, Test Method B, Input-Output with Loss Segregation*, IBR approved for §§ 431.12; 431.19; 431.20; appendix B to subpart B of part 431.

(3) Canadian Standards Association (CAN/CSA) Standard C390–98(R2005), *Energy Efficiency Test Methods for Three-Phase Induction Motors*, Test Method (1), *Input-Output Method With Indirect Measurement of the Stray-Load Loss and Direct Measurement of the Stator Winding ( $I^2R$ ), Rotor Winding ( $I^2R$ ), Core, and Windage-Friction Losses*, IBR approved for §§ 431.12; 431.19; 431.20; appendix B to subpart B of part 431.

(4) International Electrotechnical Commission Standard 60034–1 (2004), *Rotating Electrical Machines, Part 1: Rating and performance*, section 3: Duty, clause 3.2.1 and figure 1, IBR approved.

(c) *Inspection of standards.* The standards incorporated by reference are available for inspection at:

(1) National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or visit <http://www.archives.gov/federal-register/cfr/ibr-locations.html>;

(2) U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Hearings and Dockets, “Test

Procedures for Electric Motors,” Docket No. EERE-2008-BT-TP-0008, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC.

(d) *Availability of standards.*

Standards incorporated by reference may be obtained from the following sources:

(1) Copies of NEMA Standards Publication MG1-2006 with Revision 1 can be obtained from the National Electrical Manufacturers Association, 1300 North 17th Street, Suite 1752, Rosslyn, Virginia 22209, 703-841-3200, <http://www.nema.org/stds/>.

(2) Copies of IEEE Standard 112-2004 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), <http://www.ieee.org/web/publications/home/index.html>.

(3) Copies of CAN/CSA Standard C390-98(R2005) 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 online: <http://www.csa-intl.org/onlinestore/welcome.asp>.

(e) *Reference standards*—(1) *General.* The standards listed in this paragraph are referred to in the DOE procedures for testing laboratories, and recognition of accreditation bodies and certification programs but are not incorporated by reference. These sources are given here for information and guidance.

(2) *List of references.* (i) National Voluntary Laboratory Accreditation (NVLAP) Program Handbooks 150, “Procedures and General Requirements,” February 2006, and 150-10, “Efficiency of Electric Motors,” February 2007. National Voluntary Laboratory Accreditation Program, National Institute of Standards and Technology, Gaithersburg, MD 20899.

(ii) ISO/IEC Guide 17025:2005, “General requirements for the competence of calibration and testing laboratories.”

(iii) ISO Guide 27:1983, “Guidelines for corrective action to be taken by a certification body in the event of either misapplication of its mark of conformity to a product, or products which bear the mark of the certification body being found to subject persons or property to risk.”

(iv) ISO/IEC Guide 28:2004, “Conformity assessment—Guidance on a third-party certification system for products.”

(v) ISO/IEC Guide 58, “Calibration and testing laboratory accreditation systems—General requirements for operation and recognition.”

(vi) ISO/IEC Guide 60:2004, “Conformity assessment—Code of good practice.”

(vii) ISO/IEC Guide 65:1996, “General requirements for bodies operating product certification systems.”

The above international standards are available online from a variety of sources and may be obtained through the International Standards Organization at <http://www.iso.org>, the International Electrotechnical Commission at <http://webstore.iec.ch/>, the American National Standards Institute at <http://www.webstore.ansi.org/>, or Global Engineering Documents <http://www.global.ihs.com/>, as well as others.

5. In § 431.17, the introductory text is revised to read as follows:

**§ 431.17 Determination of efficiency.**

When a party determines the energy efficiency of an electric motor in order 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. This section does not apply to enforcement testing conducted pursuant to § 431.383.

\* \* \* \* \*

6. In § 431.18, paragraph (b) is revised to read as follows:

**§ 431.18 Testing laboratories.**

\* \* \* \* \*

(b) NIST/NVLAP is under the auspices of the National Institute of Standards and Technology (NIST)/National Voluntary Laboratory Accreditation Program (NVLAP), which is part of the U.S. Department of Commerce. NIST/NVLAP accreditation is granted on the basis of conformance with criteria published in 15 CFR 285. The National Voluntary Laboratory Accreditation Program, *Procedures and General Requirements*, NIST Handbook 150-10, February 2007, presents the technical requirements of the National Voluntary Laboratory Accreditation Program for the *Efficiency of Electric Motors* field of accreditation. This handbook supplements NIST Handbook 150, National Voluntary Laboratory Accreditation Program *Procedures and General Requirements*, which contains 15 CFR 285 plus all general NIST/NVLAP procedures, criteria, and policies. Changes in NIST/NVLAP’s criteria, procedures, policies, standards or other bases for granting accreditation, occurring subsequent to the initial effective date of 10 CFR part 431, shall not apply to accreditation under this Part unless approved in writing by the Department of Energy. Information regarding NIST/NVLAP and its Efficiency of Electric Motors Program

(EEM) can be obtained from NIST/NVLAP, 100 Bureau Drive, Mail Stop 2140, Gaithersburg, MD 20899-2140, telephone (301) 975-4016, or fax (301) 926-2884.

7. In § 431.19, paragraphs (b)(4) and (c)(3) and (4) are revised to read as follows:

**§ 431.19 Department of Energy recognition of accreditation bodies.**

\* \* \* \* \*

(b) \* \* \*

(4) It must be expert in the content and application of the test procedures and methodologies in IEEE Standard 112-2004 Test Method B and CAN/CSA Standard C390-98(R2005) Test Method (1), (incorporated by reference, see § 431.15) or similar procedures and methodologies for determining the energy efficiency of electric motors.

(c) \* \* \*

(3) *Qualifications to do accrediting.* Experience in accrediting should be discussed and substantiated by supporting documents. Of particular relevance would be documentary evidence that establishes experience in the application of guidelines contained in the ISO/IEC Guide 58, *Calibration and testing laboratory accreditation systems—General requirements for operation and recognition*, as well as experience in overseeing compliance with the guidelines contained in the ISO/IEC Guide 17025:2005, *General requirements for the competence of calibration and testing laboratories*, and ISO/IEC Guide 60:2004, *Conformity assessment—Code of good practice*.

(4) *Expertise in electric motor test procedures.* The petition should set forth the organization’s experience with the test procedures and methodologies in IEEE Standard 112-2004 Test Method B and CAN/CSA Standard C390-98(R2005) Test Method (1), (incorporated by reference, see § 431.15) and with similar procedures and methodologies. This part of the petition should include description of prior projects, qualifications of staff members, and the like. Of particular relevance would be documentary evidence that establishes experience in applying the guidelines contained in the ISO/IEC Guide 17025:2005, *General requirements for the competence of calibration and testing laboratories*, to energy efficiency testing for electric motors.

\* \* \* \* \*

8. In § 431.20, paragraphs (b)(4) and (c)(3) and (4) are revised to read as follows:

**§ 431.20 Department of Energy recognition of nationally recognized certification programs.**

\* \* \* \* \*

(b) \* \* \*

(4) It must be expert in the content and application of the test procedures and methodologies in IEEE Standard 112–2004 Test Method B and CAN/CSA Standard C390–98(R2005) Test Method (1), (incorporated by reference, see § 431.15) or similar procedures and methodologies for determining the energy efficiency of electric motors.

It must have satisfactory criteria and procedures for the selection and sampling of electric motors tested for energy efficiency.

(c) \* \* \*

(3) *Qualifications to operate a certification system.* Experience in operating a certification system should be discussed and substantiated by supporting documents. Of particular relevance would be documentary evidence that establishes experience in the application of guidelines contained in the ISO/IEC Guide 65:1996, *General requirements for bodies operating product certification systems*, ISO/IEC Guide 27:1983, *Guidelines for corrective action to be taken by a certification body in the event of either misapplication of its mark of conformity to a product, or products which bear the mark of the certification body being found to subject persons or property to risk*, and ISO/IEC Guide 28:2004, *Conformity assessment—Guidance on a third-party certification system for products*, as well as experience in overseeing compliance with the guidelines contained in the ISO/IEC Guide 17025:2005, *General requirements for the competence of calibration and testing laboratories*, and ISO/IEC Guide 60:2004, *Conformity assessment—Code of good practice*.

(4) *Expertise in electric motor test procedures.* The petition should set forth the program's experience with the test procedures and methodologies in IEEE Standard 112–2004 Test Method B and CAN/CSA Standard C390–98(R2005) Test Method (1), (incorporated by reference, see § 431.15) and with similar procedures and methodologies. This part of the petition should include description of prior projects, qualifications of staff members, and the like. Of particular relevance would be documentary evidence that establishes experience in applying guidelines contained in the ISO/IEC Guide 17025:2005, *General requirements for the competence of calibration and testing laboratories*.

\* \* \* \* \*

9. In § 431.31, paragraph (a)(2) is revised to read as follows:

**§ 431.31 Labeling requirements.**

(a) \* \* \*

(2) Display of required information.

All orientation, spacing, type sizes, type faces, and line widths to display this required information shall be the same as or similar to the display of the other performance data on the motor's permanent nameplate. The nominal full load efficiency shall be identified either by the term “Nominal Efficiency” or “Nom. Eff.” or by the terms specified in paragraph 12.58.2 of NEMA MG1–2006 Rev. 1, (incorporated by reference, see § 431.15) as for example “NEMA Nom. Eff. \_\_\_\_.” The DOE number shall be in the form “CC \_\_\_\_.”

\* \* \* \* \*

**Appendix A [Removed and Reserved]**

10. Appendix A to subpart B of part 431 is removed and reserved.

11. Revise sections 2 and 3 to appendix B to subpart B of 10 CFR part 431 to read as follows:

**Appendix B to Subpart B of Part 431—Uniform Test Method for Measuring Nominal Full Load Efficiency of Electric Motors**

\* \* \* \* \*

**2. Test Procedures**

Efficiency and losses shall be determined in accordance with NEMA MG1–2006 with Revision 1, paragraph 12.58.1, *Determination of Motor Efficiency and Losses*, (incorporated by reference, see § 431.15), and either:

(1) CAN/CSA Standard C390–98(R2005), *Energy Efficiency Test Methods for Three-Phase Induction Motors*, Test Method (1), *Input-Output Method With Indirect Measurement of the Stray-Load Loss and Direct Measurement of the Stator Winding (P<sub>R</sub>), Rotor Winding (P<sub>R</sub>), Core, and Windage-Friction Losses*, (Incorporated by reference, see § 431.15), or

(2) Institute of Electrical and Electronics Engineers, Inc., Standard 112–2004, *IEEE Standard Test Procedure for Polyphase Induction Motors and Generators*, Test Method B, *Input-Output with Loss Segregation*, (incorporated by reference, see § 431.15), except as follows:

(i) Page 4, subclause 3.3.2, *Specified temperature*, the clause that reads “The specified temperature shall be determined by one of the following, which are listed in order of preference:” does not apply. Instead, the following shall apply:

The specified temperature used in making resistance corrections should be determined by one of the following (Test Method B only allows the use of (a) or (b)), which are listed in order of preference:

(ii) Page 61, at the bottom of 9.4 Form B-Method B, after the footnote, the following additional sentence applies:

The values for  $t_a$  and  $t_r$  shall be based on the same method of temperature

measurement, selected from the four methods in subclause 4.4.1.

(iii) Page 62, in item (19) of 9.5 Form B2-Method B Calculations, the following additional reference should be appended to the “Source or Calculation” cell for that item: “and 6.4.3.2.”

**3. Amendments to Test Procedures**

Any revision to IEEE Standard 112–2004 Test Method B, to CAN/CSA Standard C390–98(R2005) Test Method (1), or to NEMA Standards Publication MG1–2006 Revision 1 after the promulgation of this appendix B, shall not be effective for purposes of test procedures required under Part 431 and this appendix B, unless Part 431 and appendix B are amended.

12. Part 431 is amended by adding a new Subpart T to read as follows:

**Subpart T—Small Electric Motors**

Sec.

431.341 Purpose and scope.

431.342 Definitions concerning small electric motors.

**Test Procedures**

431.343 Materials incorporated by reference.

431.344 Test procedures for the measurement of energy efficiency.

431.345 Determination of small electric motor energy efficiency.

**Energy Conservation Standards**

431.346 Energy conservation standards and their effective dates

**§ 431.341 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.

**§ 431.342 Definitions concerning small electric motors.**

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 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 § 431.346 prescribes nominal full load efficiency standards.

*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.

### Test Procedures

#### § 431.343 Materials incorporated by reference.

(a) General. The Department incorporates by reference the following test procedures into subpart T 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 this material by the standard-setting organization will not affect the Department test procedures unless and until the Department amends its test procedures. The Department 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**.

(b) *Test procedures incorporated by reference.* (1) Institute of Electrical and Electronics Engineers, Inc., IEEE Standard 114-2001, *IEEE Standard Test Procedure for Single-Phase Induction Motors*.

(2) Institute of Electrical and Electronics Engineers, Inc., IEEE Standard 112-2004, *IEEE Standard Test Procedure for Polyphase Induction Motors and Generators*.

(3) Canadian Standards Association (CAN/CSA) Standard C747-94, *Energy Efficiency Test Methods for Single- and Three-Phase Small Motors*. (Reaffirmed 2005)

(c) *Availability of reference*—(1) Inspection of test procedures. The test procedures incorporated by reference are available for inspection at the following locations:

(i) National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or visit <http://www.archives.gov/>

*federal register/ code of federal regulations/ ibr locations.html*.

(ii) Resource Room of the Building Technologies Program, U.S. Department of Energy, 6th Floor, 950 L'Enfant Plaza, SW., Washington, DC 20024, (202) 586-2945, between 9 a.m. and 4 p.m., Monday through Friday, except Federal holidays.

(2) *Obtaining copies of the standard.* Copies of the standards incorporated by reference may be obtained from the following sources:

(i) 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>.

(ii) The Canadian Standards Association, Sales Department, 5060 Spectrum Way, Suite 100, Mississauga, Ontario, L4W 5N6, Canada, 1-800-463-6727, or <http://www.csa-intl.org/onlinestore/welcome.asp>.

#### § 431.344 Test Procedures for the Measurement of Energy Efficiency.

(a) Scope. This section provides the test procedure for measuring, pursuant to EPCA, the efficiency of small electric motors pursuant to EPCA. For purposes of this part 431 and EPCA, the test procedure for measuring the efficiency of small electric motors shall be the test procedures specified in § 431.343(b).

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

(1) Canadian Standards Association (CAN/CSA) Standard C747-94, (incorporated by reference, see § 431.343), *Energy Efficiency Test Methods for Single- and Three-Phase Small Motors*, or

(2) Either IEEE Standard 114-2001, (incorporated by reference, see § 431.343), *IEEE Standard Test Procedure for Single-Phase Induction Motors*, or IEEE Standard 112-2004, (incorporated by reference, see § 431.343), *IEEE Standard Test Procedure for Polyphase Induction Motors and Generators*.

#### § 431.345 Determination of Small Electric Motor Efficiency.

When a party determines the energy efficiency of a small electric motor in order 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. This section does not apply to enforcement testing conducted pursuant to § 431.381.

(a) *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 § 431.344 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 § 431.344; 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 distribution transformers 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.

(b) *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 following criteria:

(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 calendar months period beginning in 2005,<sup>1</sup> whichever is later;

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

(C) The basic models should be of different frame number series without duplication; 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) Selection of units for testing within a basic model. For each basic model selected for testing,<sup>2</sup> a sample of units shall be selected at random and tested. The sample shall be comprised of production units of the basic model, or units that are representative of such production units. The sample size shall be no fewer than five units, except when fewer than five units of a basic model would be produced over a reasonable period of time (approximately 180 days). In this case, each unit shall be tested.

## Energy Conservation Standard

### **§ 431.346 Small Electric Motor Energy Conservation Standards and Their Effective Dates. [RESERVED]**

13. In § 431.385, paragraph (a) introductory text is revised to read as follows:

### **§ 431.385 Cessation of distribution of a basic model of an electric motor.**

(a) In the event that a model of an electric motor is determined non-

compliant by the Department in accordance with § 431.383 or if a manufacturer or private labeler determines a model of an electric motor to be in noncompliance, then the manufacturer or private labeler shall:

\* \* \* \* \*

[FR Doc. E8-30198 Filed 12-19-08; 8:45 am]

BILLING CODE 6450-01-P

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Food and Drug Administration

#### 21 CFR Part 878

[Docket No. FDA-2008-N-0604]

### General and Plastic Surgery Devices: Proposed Classification for the Tissue Expander

**AGENCY:** Food and Drug Administration, HHS.

**ACTION:** Proposed rule.

**SUMMARY:** The Food and Drug Administration (FDA) is proposing to classify into class II (special controls) the tissue expander, as a device intended for temporary (less than 6 months) subdermal implantation to stretch the skin for surgical applications, specifically to develop surgical flaps and additional tissue coverage. Elsewhere in this issue of the **Federal Register**, FDA is announcing the availability of the draft guidance that FDA intends will serve as the special control if FDA classifies this device type into class II.

**DATES:** Submit written or electronic comments by March 23, 2009. See section IV of this document for the proposed effective date of a final rule based on this proposed rule.

**ADDRESSES:** You may submit comments, identified by Docket No. FDA-2008-N-0604, by any of the following methods: *Electronic Submissions*

Submit electronic comments in the following way:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments.

*Written Submissions*

Submit written submissions in the following ways:

- FAX: 301-827-6870.
- Mail/Hand delivery/Courier [For paper, disk, or CD-ROM submissions]: Division of Dockets Management (HFA-305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852.

To ensure more timely processing of comments, FDA is no longer accepting

comments submitted to the agency by e-mail. FDA encourages you to continue to submit electronic comments by using the Federal eRulemaking Portal, as described previously, in the **ADDRESSES** portion of this document under *Electronic Submissions*.

**Instructions:** All submissions received must include the agency name and docket number for this rulemaking. All comments received may be posted without change to <http://www.regulations.gov>, including any personal information provided. For additional information on submitting comments, see the "Comments" heading of the **SUPPLEMENTARY INFORMATION** section of this document.

**Docket:** For access to the docket to read background documents or comments received, go to <http://www.regulations.gov> and insert the docket number, found in brackets in the heading of this document, into the "Search" box and follow the prompts and/or go to the Division of Dockets Management, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852.

#### **FOR FURTHER INFORMATION CONTACT:**

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#### **SUPPLEMENTARY INFORMATION:**

##### **I. Background**

The Federal Food, Drug, and Cosmetic Act (the act), as amended by the Medical Device Amendments of 1976 (the 1976 amendments) (Public Law 94-295), the Safe Medical Devices Act of 1990 (Public Law 101-629), and the Food and Drug Modernization Act of 1997 (FDAMA) (Public Law 105-115), the Food and Drug Administration Amendments Act of 2007 (Public Law 110-85), among other amendments, established a comprehensive system for the regulation of medical devices intended for human use. Section 513 of the act (21 U.S.C. 360c) established three categories (classes) of devices, depending on the regulatory controls needed to provide reasonable assurance of their safety and effectiveness. The three categories of devices are class I (general controls), class II (special controls), and class III (premarket approval).

Under section 513 of the act, FDA refers to devices that were in commercial distribution before May 28, 1976 (the date of enactment of the 1976 amendments), as "preamendments devices." FDA classifies these devices after the agency has taken the following steps:

<sup>1</sup> In identifying these five basic models, any small electric motor that does not comply with § 431.346 shall be excluded from consideration.

<sup>2</sup> Components of similar design may be substituted without requiring additional testing if the represented measures of energy consumption continue to satisfy the applicable sampling provision.