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[6450-01-P]

DEPARTMENT OF ENERGY

10 CFR Parts 429 and 431

[Docket Number EERE-2014-BT-CE-0019]

RIN 1904-AD25

Energy Conservation Program: Certification, Compliance, Labeling, and Enforcement for Electric Motors and Small Electric Motors

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

ACTION: Final rule.

SUMMARY: The U.S. Department of Energy (“DOE” or the “Department”) is revising its certification, compliance, and enforcement regulations for electric motors and small electric motors to conform to the enforcement regulations for all other covered products and equipment and to consolidate, to a limited extent, the certification and compliance regulations for electric motors and small electric motors with those for other types of covered products and equipment.

DATES: The effective date of this rule is [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. The incorporation by reference of a certain standard listed in this rule was approved by the Director of the Federal Register as of March 7, 2011.

ADDRESSES: The docket for this rulemaking, which includes Federal Register notices, comments, and other supporting documents/materials, is available for review at www.regulations.gov. All documents in the docket are listed in the www.regulations.gov index. However, not all documents listed in the index may be publicly available, such as information that is exempt from public disclosure.

The docket web page can be found at <https://www.regulations.gov/docket?D=EERE-2014-BT-CE-0019>. The docket web page contains simple instructions on how to access all documents, including public comments, in the docket.

For further information on how to review the docket, contact the Appliance and Equipment Standards Program staff at (202) 586-6636 or by email: MotosCCE2014CE0019@ee.doe.gov.

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I. Authority and Background

Title III of the Energy Policy and Conservation Act of 1975, as amended (“EPCA” or, in context, “the Act”) sets forth a variety of provisions designed to improve energy efficiency. Part A of Title III (42 U.S.C. 6291-6309) provides for the Energy Conservation Program for Consumer Products Other Than Automobiles. The National Energy Conservation Policy Act (NECPA), Public Law 95-619, amended EPCA to add Part B of Title III, which established an energy conservation program for certain industrial equipment. (42 U.S.C. 6311-6317)¹ Included among the various equipment types addressed by EPCA² are electric motors and small electric motors.

As relevant here, DOE's energy conservation program under EPCA consists essentially of four parts: (1) testing, (2) labeling, (3) Federal energy conservation standards, and (4) certification and enforcement procedures. The testing requirements consist of test procedures that manufacturers of covered products must use as the basis for: (1) certifying to DOE that their products comply with the applicable energy conservation standards adopted under EPCA; and (2) making representations about the efficiency of those products. Similarly, DOE must use these test procedures to determine whether the products comply with any relevant standards promulgated under EPCA.³ Further, 42 U.S.C. 6299-6305, 6316, and 6317 authorize DOE to enforce compliance

¹ For editorial reasons, Parts B (consumer products) and C (commercial equipment) of Title III of EPCA were codified as parts A and A-1, respectively, in the United States Code.

² All references to EPCA in this document refer to the statute as amended through the Energy Efficiency Improvement Act of 2015, Public Law 114-11 (April 30, 2015).

³ The test procedures for electric motors are described in appendix B to subpart B of 10 CFR part 431; the test procedures for small electric motors are described in 10 CFR 431.444.

with the energy conservation standards related to a variety of consumer products and commercial equipment, including electric motors and small electric motors.

The provisions related to the compliance, certification, and enforcement (“CCE”) of electric motors in this rule are based on the existing compliance certification procedures for electric motors. Under 42 U.S.C. 6316(c), DOE must require manufacturers of electric motors for which energy conservation standards are established at 42 U.S.C. 6313(b) to certify, through an “independent testing or certification program nationally recognized in the United States” that those electric motors meet the applicable standard. DOE codified this requirement by developing a regulatory process for laboratory accreditation (for independent testing) and for the recognition and withdrawal of recognition for certification programs nationally recognized in the U.S. Under 10 CFR 431.17(a)(5), a manufacturer can establish compliance either through: (1) a certification program that DOE has classified as nationally recognized,⁴ or (2) testing in an accredited laboratory for which the accreditation body was the National Institute of Standards and Technology/National Voluntary Laboratory Accreditation Program (“NIST/NVLAP”), a laboratory accreditation body having a mutual recognition arrangement with NIST/NVLAP, or an organization classified by DOE as an accreditation body pursuant to 10 CFR 431.19. Existing DOE regulations detail the certification program national recognition process at 10 CFR 431.20-431.21 and laboratory accreditation at 10 CFR 431.18-431.19.

⁴ To date, DOE has only classified Canadian Standards Association (CSA) and Underwriters Laboratories, Inc. (UL) as certification programs nationally recognized in the U.S.

On May 4, 2012, DOE published certain compliance testing regulations for small electric motors. See 77 FR 26608 (“2012 test procedure”) (codified at 10 CFR 431.445, 431.447, 431.448). Under these regulations, manufacturers of small electric motors have the option of self-certifying the efficiency of their small electric motors or using a certification program nationally recognized in the U.S. to certify the efficiency of these motors. See 10 CFR 431.445. In the 2012 test procedure, DOE noted that there were no existing certification programs for small electric motors. 77 FR at 26630. Since then, DOE has recognized two certification programs for small electric motors. See 78 FR 72077 (December 2, 2013) (recognition of UL) and 79 FR 24700 (May 1, 2014) (recognition of CSA). DOE also noted in the 2012 test procedure that it would work with NIST/NVLAP on small electric motor laboratory accreditation programs. See 77 FR at 26630.

EPCA sets different labeling requirements for electric motors and small electric motors. For electric motors, EPCA directed DOE to prescribe labeling requirements, taking into consideration NEMA Standards Publication MG1-1987. (42 U.S.C. 6315(d)) Consistent with this requirement, DOE established labeling requirements for electric motors on October 5, 1999 (October 1999 final rule). See 64 FR 54114. In contrast, although EPCA directs DOE to prescribe labeling requirements for those small electric motors for which the Secretary of Energy has prescribed energy efficiency standards, the statute does not require DOE to consider MG1-1987. (42 U.S.C. 6317(d))

On June 24, 2016, DOE published a notice of proposed rulemaking (NPR) revising its certification and enforcement regulations for electric motors and small

electric motors. 81 FR 41378. DOE proposed to: (1) move and amend certification and sampling provisions for electric motors to 10 CFR 429.12 and 429.63, (2) move the sampling and certification testing provisions for small electric motors to 10 CFR 429.12 and 429.64, (3) add certification provisions specific to small electric motors to 10 CFR 429.64, (4) move and amend existing AEDM provisions for electric motors and for small electric motors to 10 CFR 429.70, (5) move and amend the administrative process for recognizing certification programs to new sections 10 CFR 429.73 and 429.75, (6) add an administrative process for recognizing testing laboratories, either directly or through recognition of accreditation organizations, to new sections 10 CFR 429.74 and 429.75, (7) move the electric motor labeling requirements from 10 CFR 431.31 to 10 CFR 429.76, (8) add labeling requirements for small electric motors, (9) add a definition for “independent” to describe how DOE would evaluate the independence of testing laboratories and certification programs, (10) revise the definition of basic model for electric motors and small electric motors, (11) add a definition for “equipment class”, (12) remove definitions related to accreditation as a result of the proposed changes regarding laboratory accreditation, (13) apply the enforcement procedure found at Subpart C of Part 429 to electric motors and small electric motors, (14) address how to treat electric motors and small electric motors that are capable of operation at multiple voltages, and (15) clarify the exclusion for small electric motors found at 42 U.S.C. 6317(b)(3).

In today’s final rule, DOE addresses some of the topics proposed in the NOPR. This rule discusses comments and adopts provisions to: (1) move the certification and sampling provisions for electric motors, (2) move the sampling and certification testing

provisions for small electric motors, (3) add certification provisions specific to small electric motors, (4) move and amend existing AEDM provisions for electric motors and for small electric, (5) revise the definition of basic model for electric motors and small electric motors, (6) add a definition for “equipment class,” and (7) apply the enforcement procedure found at Subpart C of Part 429 to electric motors and small electric motors. In light of the comments received in response to the June 2016 NOPR, DOE believes that the remaining topics warrant further deliberation, and therefore DOE will address the remaining proposals in a separate notice.

II. Synopsis of the Final Rule

In this final rule, DOE is revising its certification, compliance, and enforcement regulations applicable to electric motors and small electric motors to conform to the certification, compliance, and enforcement regulations established by the Department for all other covered products and equipment. The regulations adopted in this rule also provide specific sampling plans, certification requirements, AEDM requirements, and enforcement provisions for electric motors and small electric motors.

Specifically, DOE is amending and moving the portions of the existing electric motor regulations that pertain to certification, compliance and enforcement to 10 CFR part 429. Regarding certification reporting requirements for electric motors,⁵ DOE is moving most of 10 CFR 431.36 and 10 CFR part 431, appendix C to subpart B. In place

⁵ Unless otherwise indicated, reference to “electric motors” in the text is not intended to include “small electric motors.”

of these provisions, DOE is making electric motors subject to the general certification report requirements found at 10 CFR 429.12 and adding certification report parameters for electric motors in paragraph (c) of the proposed 10 CFR 429.63. DOE is restructuring 10 CFR 431.36 to retain the compliance certification number provisions, while harmonizing them with the revised certification provisions. DOE is also requiring that electric motors manufacturers submit the first certification report under new certification provisions by July 1, 2017. In addition, manufacturers must, prior to distribution in commerce of any new basic models on or after 60 days following publication of this rule, submit certification to DOE in accordance with the new certification requirements adopted in this rule.

Similarly, DOE is moving the existing small electric motor regulations pertaining to certification testing to 10 CFR part 429. DOE is making small electric motors subject to the general certification report requirements found at 10 CFR 429.12 and also adopting equipment-specific certification provisions for small electric motors that would appear in a new 10 CFR 429.64(b). See section III.A.2 for the specific certification requirements. DOE is requiring small electric motors manufacturers, prior to distribution in commerce of small electric motors on or after 90 days after the publication of this rule, to submit the certification of compliance required by this rule.

For both electric motors and small electric motors, DOE is amending the definition of “basic model” in order to make it similar to definitions used for other DOE-regulated products, and is also defining the term “equipment class” in 10 CFR 431.12 and 10 CFR 431.442.

This final rule retains the options of using alternative efficiency determination methods to determine energy efficiency or energy use, but is moving the relevant provisions from 10 CFR 431.17 and 10 CFR 431.445 to 10 CFR 429.70. DOE is largely retaining the current certification testing requirements for electric motors and small electric motors as discussed in section III.A.1. For electric motors, all validation testing must be conducted at an accredited lab for which the accreditation body was NIST/NVLAP, a laboratory accreditation body having a mutual recognition arrangement with NIST/NVLAP, or an organization classified by the Department as an accreditation body. Small electric motor manufacturers must conduct validation testing in accordance with the requirements specified in the new 10 CFR 429.64.

Under this final rule, the enforcement provisions in subpart C to part 429 that apply to all other types of covered products and equipment will apply to electric motors and small electric motors. Therefore, the enforcement provisions in place for electric motors are moved from 10 CFR part 431, subpart U, to 10 CFR 429.110, and the enforcement sampling provisions are moved to a new appendix E to subpart C of part 429. This rule adopts the proposed enforcement provisions for small electric motors in 10 CFR 429.110.

In this rule, DOE is making electric motors and small electric motors subject to the prohibited acts listed in 10 CFR 429.102, and is adding additional prohibited acts to 10 CFR 429.102 specific to electric motors. Additionally, DOE is making electric motors and small electric motors subject to the provisions related to test notices as described in 10 CFR 429.110.

DOE is moving the current enforcement sampling plan for electric motors to a new appendix E to subpart C of part 429, and making these enforcement sampling provisions applicable to small electric motors. DOE is increasing the maximum sample size to 21 units, requiring enforcement testing to be conducted at a lab accredited to ISO/IEC 17025:2005(E), using its discretion to conduct additional testing as a result of a defective unit, and no longer allowing additional enforcement testing at the manufacturer's request.

In addition, in light of comments from interested parties, DOE is adding a new paragraph (f) to 10 CFR 429.110, which contains product-specific provisions for verifying efficiency representations for electric and small electric motors.

Lastly, DOE is removing the sections related to notices of noncompliance and penalties from 10 CFR part 431, and making electric motors and small electric motors subject to the provisions in 10 CFR 429.114 through 429.132.

III. General Discussion

A. Conformance with Existing Certification, Compliance and Enforcement Regulations

In the June 2016 NOPR, DOE proposed to make the certification, compliance, and enforcement provisions for electric motors and small electric motors consistent with the general provisions already in place for all other EPCA-covered products and equipment found in 10 CFR part 429, subpart A (general provisions), subpart B (certification), and subpart C (enforcement).

1. Transition to 10 CFR part 429

In the June 2016 NOPR, DOE proposed to amend and move the portions of the existing electric motor regulations that pertain to certification, compliance, and enforcement to 10 CFR part 429. In addition, DOE proposed to amend other sections of 10 CFR part 431, subpart B, to ensure the regulatory structure comprising 10 CFR part 431, subpart B, and 10 CFR part 429 remains coherent. DOE also proposed to amend the “Purpose and Scope” in § 431.11 by removing references to labeling and compliance, and place them in part 429.

Similarly, DOE proposed to change the existing small electric motor regulations at 10 CFR part 431, subpart X. The portions of the existing small electric motor regulations that pertain to certification testing would be amended and moved to 10 CFR part 429. Under the proposal, DOE would amend or remove other sections of 10 CFR part 431, subpart X, to ensure coherence between 10 CFR part 431, subpart X, and 10 CFR part 429.

Joint comments from the Appliance Standards Awareness Project, American Council for an Energy-Efficient Economy, Earthjustice, and Northwest Energy Efficiency Alliance (hereafter referred to as the Advocates) and the Pacific Gas and Electric Company, Southern California Gas Company, Southern California Edison, and San Diego Gas and Electric Company (hereafter referred to as CA IOUs) supported DOE’s proposal to make the certification, compliance, and enforcement provisions for electric and small electric motors consistent with the existing certification, compliance and enforcement regulations of other EPCA-covered products and equipment.

(Advocates, No. 16 at p. 2; CA IOUs, No. 13 at p. 3)⁶ The Advocates explained some of the benefits of amending and moving the certification, compliance, and enforcement provisions for electric motors to 10 CFR part 429. The Advocates explained that the general structure of DOE's current electric motors CCE rules pre-date the general approach to commercial and industrial CCE finalized by DOE in 2011. Integrating the CCE regulations for motors and small motors with those of other commercial and industrial products, they explained, will enable DOE to enforce these standards like it enforces all others. The Advocates commented that ambiguities and unclear enforcement protocols will be replaced by the same, effective system generally applied for other products. Benefits of this integration will include: an updated and more consistent definition of basic model which will help ensure that all motors and small motors are certified; annual certification, which will enable DOE's compliance certification management system (CCMS) to accurately reflect currently available products certified as compliant with current standards and foster annual review by manufacturers to ensure they are in compliance; submittal of sufficient information for DOE to determine if a product is in compliance, and; standardized enforcement procedures that will enable the agency to more effectively address non-compliance. (Advocates, No. 16 at p.2)

The National Electrical Manufacturers Association (NEMA) requested DOE issue a working draft of the proposed amendments to 10 CFR part 429. (NEMA, No. 10 at p. 3)

The June 2016 NOPR included proposed instructions to amend the regulatory text of 10

⁶ The parenthetical reference provides a reference for information located in the docket of DOE's rulemaking to amend the certification, compliance, labeling, and enforcement provisions for electric motors and small electric motors. (Docket No. EERE-2014-BT-CE-0019, which is maintained at <https://www.regulations.gov/docket?D=EERE-2014-BT-CE-0019>). The references are arranged as follows: (commenter name, comment docket ID number, page of that document).

CFR part 429 and 10 CFR part 431, and DOE explained the proposed edits within the preamble of the notice. While DOE will not be issuing a working draft for review, DOE has mapped the transition of the certification, compliance, and enforcement provisions for electric motors and small electric motors in 10 CFR part 431 to 10 CFR part 429 in [Table 1](#) and [Table 2](#).

In this rule, DOE has largely retained the procedures for recognition and withdrawal of recognition of accreditation bodies and certification programs as it existed at 10 CFR 431.21. In the June 2016 NOPR, DOE proposed that corrective action must not exceed 180 days from the date of the notice and the notified entity may dispute DOE's basis for the determination within 30 days of the date of the notice. DOE is adding these requirements to the procedures for recognition and withdrawal of recognition because it believes this timeframe is an important clarification. DOE did not receive any comments opposing this change.

Table 1. Electric Motors Certification, Compliance, and Enforcement CFR Transitions

Subpart B—Electric Motors⁷	New Location
10 CFR 431.14 Sources for information and guidance	Moved to 10 CFR 429.3
10 CFR 431.17 Determination of efficiency	Moved text to 10 CFR 429.63 and 10 CFR 429.70 as relevant
10 CFR 431.18 Testing laboratories	Moved to 10 CFR 429.63
10 CFR 431.19 Department of Energy recognition of accreditation bodies	Moved to 10 CFR 429.74
10 CFR 431.20 Department of Energy recognition of nationally recognized certification programs	Moved to 10 CFR 429.73
10 CFR 431.21 Procedures for recognition and withdrawal of recognition of accreditation bodies and certification programs	Moved to 10 CFR 429.75
10 CFR 431.31 Labeling requirements	Moved to 10 CFR 429.76
10 CFR 431.32 Preemption of State regulations	Moved to 10 CFR 429.76

⁷ As it appeared at 10 CFR part 431, subpart B, in the 10 CFR parts 200 to 499 edition revised as of January 1, 2016.

10 CFR 431.36 Compliance Certification	General certification requirements in 10 CFR 429.12
Appendix C to Subpart B of Part 431—Compliance Certification	Certification requirements in 10 CFR 429.12 and 10 CFR 429.63
Subpart U—Enforcement for Electric Motors⁸	Enforcement in 10 CFR Part 429, Subpart C

Table 2. Small Electric Motors Certification, Compliance, and Enforcement CFR Transitions

Subpart X—Small Electric Motors	New Location
10 CFR 431.445 Determination of small electric motor efficiency.	Moved text to 10 CFR 429.64 and 10 CFR 429.70 as relevant
10 CFR 431.447 Department of Energy recognition of nationally recognized certification programs.	Moved to 10 CFR 429.73
10 CFR 431.448 Procedures for recognition and withdrawal of recognition of certification programs.	Moved to 10 CFR 429.75

2. Certification Reports

Electric Motors

As part of the June 2016 NOPR and to conform the certification provisions in place for all other EPCA-covered products and equipment, DOE proposed that both 10 CFR 431.36 and 10 CFR part 431, appendix C to subpart B would be removed. In place of these provisions, DOE proposed to make electric motors subject to the general certification report requirements found at 10 CFR 429.12 and add certification report parameters for electric motors in paragraph (c) of the proposed 10 CFR 429.63.

DOE proposed to require electric motor manufacturers to certify their products using a more detailed certification report containing the information listed at 10 CFR

⁸ As it appeared at 10 CFR part 431, subpart U, in the 10 CFR parts 200 to 499 edition revised as of January 1, 2016.

429.12(b) in place of the current certification report described at 10 CFR part 431, appendix C to subpart B. Importers, which are manufacturers under EPCA, would be required to certify the compliance of the electric motors they import. Under the proposed rule, private labelers would no longer be required to certify the compliance of the products they label.⁹ DOE did not receive any comments in response to this proposal and is adopting it in today's rule.

The general certification report requirements already contained in 10 CFR 429.12 require that, before distributing in U.S. commerce any basic model of a covered product or equipment subject to standards under EPCA, and annually thereafter, each manufacturer must submit a certification report to DOE certifying that each basic model meets the applicable energy conservation standard. As with other covered products and equipment subject to DOE energy conservation standards, although annual certification would be required, additional testing would not be required as long as the represented nominal full-load efficiency (electric motors) or represented average full-load efficiency (small electric motors) continued to remain valid (e.g., the manufacturer did not make changes to a given basic model that would result in a less efficient motor). In accordance with 10 CFR 429.12(h), the certification reports would be required to be submitted to DOE electronically using CCMS. The general components of each certification report are listed at 10 CFR 429.12(b) and (c) and are similar to the information currently reported by electric motor manufacturers.

⁹ See 76 FR 12422 at 12427 (March 7, 2011) for a discussion of the rationale for this change in DOE's 2011 CCE rule.

The CA IOUs supported DOE's proposal to require that electric motor and small electric motor manufacturers certify the compliance of a basic model annually. The CA IOUs also supported DOE's proposal to not require additional testing when certifying compliance annually, as long as there are no changes made to the basic model, production process, and the represented nominal full-load efficiency remains the same. (CA IOUs, No. 13 at p. 3) The Advocates supported annual certification because it will enable DOE's CCMS to accurately reflect currently available products certified as compliant with current standards and foster annual review by manufacturers to ensure they are in compliance. (Advocates, No. 16 at p. 2)

NEMA commented that they do not perceive any value in the added regulatory burden of annual filing when products have not experienced any changes. NEMA stated that this proposal represents incremental regulatory burden without any benefits. NEMA believes that each manufacturer should be tasked with submitting a certificate of conformity along with the updated files for their product portfolio only when there is a change in the basic model design or due to a regulatory change in efficiency level. (NEMA, No. 10 at p. 8) Baldor Electric Company agreed with NEMA's position. (Baldor, No. 11 at p.4)

In the June 2016 NOPR, DOE proposed that electric motors must be annually certified by November 1st, and small electric motors must be annually certified by April 1st. NEMA commented that it has no preference as to when the submission date is scheduled, and stated that splitting small electric motors and electric motors would be acceptable until such time when the rules may be merged. (NEMA, No. 10 at p. 8)

Although DOE recognizes that annual filing will increase the frequency with which manufacturers must file reports, the increase in cost burden will be minimal. Specifically, annual filing does not require manufacturers to conduct additional testing if the manufacturer did not make changes to a given basic model that would result in a less efficient motor. In addition, the filing requirement merely requires manufacturers to submit an electronic certification report for all models a manufacturer has in distribution in that year. DOE believes that electronic reporting reduces the burden of preparing certification reports. DOE also supplies manufacturers with certification report templates, which can be used to certify up to 1,000 models per spreadsheet.¹⁰ Further, the proposed electric motors-specific certification report requirements, discussed in later paragraphs, largely reflect the type of information already currently reported by electric motor manufacturers. Accordingly, the Department believes that this minimal increase in cost burden is outweighed by the need to ensure that the Department and the public have accurate and comprehensive efficiency information. In addition, an annual filing establishes a set date for manufacturers to fulfill this reporting obligation, which should allow manufacturers to regularize their annual reporting practices, thereby lowering costs and enhancing compliance. Further, such annual filings will provide DOE with comprehensive, up-to-date efficiency information about the regulated products sold in the United States at any given time—a necessary predicate to an effective enforcement program. In today’s rule, DOE is maintaining its proposal to amend and move the

¹⁰ Certification templates can be found at <https://www.regulations.doe.gov/ccms/templates>.

existing certification, compliance, and enforcement provisions for electric motors and small electric motors to 10 CFR part 429.

NEMA commented that certified motors that are exported and then returned to the United States as imports should not have to be re-certified. (NEMA, No. 10 at p. 2) DOE notes that the same manufacturer would not be required to recertify a basic model within the same annual certification period as long as the basic model was not altered, specifically the basic model's efficiency remained the same, when it re-entered the United States.

DOE's current CCE regulations for covered products and equipment other than electric motors require certification of the compliance of each basic model (10 CFR 429.12), unlike DOE's current electric motor regulations in 10 CFR 431.36, which require the filing of a certification report for the least efficient basic model within each "rating" (as defined at 10 CFR 431.12).¹¹ DOE proposed to require the filing of certification reports for all basic models of electric motors. In other words, manufacturers must certify each basic model (but not each individual model) using the new certification provisions by July 1, 2017, and file certification reports every year thereafter. Starting 30 days following the publication of this rule, a manufacturer would need to certify any new basic model (but not each individual model) prior to distribution in commerce and to file certification reports every year thereafter. Discontinued basic models would be required

¹¹ Manufacturers are not currently required to certify to DOE the compliance of basic models within the same "rating" (as defined at 10 CFR 431.12) that are more efficient than the certified basic model.

to be reported on the annual report when production has ceased and the manufacturer is no longer offering the basic model for sale.

The proposed electric motors-specific certification report requirements would largely reflect the type of information already currently reported by electric motor manufacturers and include: the electric motor equipment category as described at 10 CFR 431.25 (e.g., fire pump electric motors); the horsepower on which the electric motor basic model was tested; the number of poles; the enclosure construction (i.e., open or enclosed); the rated voltage; the operating frequency(ies); whether the basic model is subject to specific test procedure provisions listed in section 4 of appendix B to subpart B of part 431 and, if so, which provision(s); the represented full-load efficiency and the represented total losses; the sampling methodology used; whether the represented values are based on testing in an independent testing laboratory or a nationally recognized certification program; and the name of the independent testing laboratory or nationally recognized certification program. The June 2016 NOPR also proposed to apply the general certification report requirements at 10 CFR 429.12(b) to electric motors.¹²

In response, NEMA commented that DOE should not use the term "represented full-load efficiency" and maintain the use of "NEMA Nominal Efficiency". (NEMA, No. 10 at p. 11) In the June 2016 NOPR, as a part of DOE's proposal to amend the sampling

¹² These requirements include: manufacturer's name and address; private labeler's name and address (if applicable); brand name; basic model number and individual manufacturer's model numbers covered by that basic model; whether the submission is for a new model, a discontinued model, a correction to a submitted model, a carryover model, or a model in violation of a voluntary industry certification program; the test sample size; whether certification is based on a test procedure waiver; whether certification is based on exception relief from DOE's Office of Hearing and Appeals; and whether certification is based on an AEDM. See 10 CFR 429.12(b).

plan for electric motors, manufacturers would use the sampling plan to determine the represented full-load efficiency. At this time, DOE is not amending the sampling plan for electric motors, which manufacturers use to determine their represented values; DOE intends to address any requirements that would alter the sampling plan in a separate notice. In today's rule, DOE is retaining and moving the current sampling requirements for electric motors and is therefore requiring electric motor manufacturers to certify nominal full-load efficiency, which is the same value that must be used for all representations of efficiency. DOE reordered the equation to solve for the represented value in implementing the sampling plans in Part 429; however, this does not change the methodology used to determine the value. For further clarification, DOE is also specifying that manufacturers must determine the nominal full-load efficiency of a basic model by selecting an efficiency from the "Nominal Full-Load Efficiency" Table in Appendix B, which is based on the efficiency levels listed at NEMA MG1-2009, Table 12-10. Notably, the use of the table in Appendix B does not change the criteria by which motors are rated. DOE did not receive any other comments specific to its proposed certification report requirements for electric motors and, while not amending the applicable sampling plan, is adopting these product-specific reporting requirements.

In the June 2016 NOPR, DOE also proposed the concept of a manufacturer identification number or "MIN" that manufacturers must include in their certification reports. DOE intends to address MIN in a separate rulemaking and is not including MIN as required certification information at this time. DOE has modified 10 CFR 431.36 to remove the certification report requirements and has restructured the CC number provisions. Specifically, consistent with 10 CFR 429.12, DOE has modified the language

to indicate that a manufacturer will typically be the party to submit a request for a CC number as part of a compliance certification report as it is the party responsible for certification. To retain the current ability of private labelers to request a CC number, DOE has added a provision to specify that DOE will accept a request for a CC number filed by or on behalf of a private labeler provided that it meets the same standard as that applied to electric motor manufacturers. Consistent with DOE's review of certification reports filed for all other types of covered products and equipment, DOE removed the provision specifying that DOE will affirmatively respond to every compliance certification report filed. The criteria for issuance of a single or multiple CC numbers is unchanged.

To conform with the proposed shifting of the compliance certification provisions for electric motors to 10 CFR part 429, DOE proposed to (1) amend 10 CFR 431.35 ("Applicability of certification requirements") to reflect that certification procedures are set forth in 10 CFR 429.12 and 429.63, (2) remove 431.36 ("Compliance Certification"), and (3) remove appendix C to subpart B of part 431. The certification report requirements would be located at 10 CFR 429.12 and 429.63. DOE provides templates in Excel format at <https://www.regulations.doe.gov/ccms/templates>. DOE did not receive any comments on this proposal and is adopting these changes in this rule except as noted previously with respect to compliance certification numbers.

DOE received comments on compliance dates for initial certification of electric motors and small electric motors before initial distribution in commerce and annual certification. In the June 2016 NOPR, DOE proposed that manufacturers would submit

the first certification report under the new certification provisions by July 1, 2017. DOE also proposed that any new basic models to be introduced to the U.S. market would be required to use the new certification requirements starting 30 days following the publication of a final rule.

The CA IOUs supported DOE's proposal to require that manufacturers submit the first certification report by July 1, 2017, and that any new basic model that is distributed in the U.S. market must certify 30 days following the publication of a final rule. (CA IOUs, No. 13 at p. 4) UL recommended that DOE allow a minimum of 120 days from publication for new basic models to be tested using the new sampling plan and certification requirements. (UL, No. 9 at p. 11) Although DOE is not amending the sampling requirements for electric motors in today's rule, in consideration of the request for more time, DOE is requiring that electric motors manufacturers must submit the first certification report under the new certification provisions by July 1, 2017, and any new basic models to be introduced to the U.S. market are required to use the new certification requirements starting 60 days following the publication of this rule.

Small Electric Motors

In the June 2016 NOPR, DOE proposed equipment-specific certification provisions for small electric motors that would appear in a new 10 CFR 429.64(b). The proposed certification report requirements that would apply to each basic model of small electric motor include: the small electric motor group as described at 10 CFR 431.446(a); the horsepower on which the basic model was tested; the number of poles; the

represented average full-load efficiency; the represented total losses; whether the represented values are based on testing in an independent testing laboratory or nationally recognized certification program; and the name of the independent testing laboratory or nationally recognized certification. DOE also proposed that small electric motor manufacturers would certify a MIN. However, as explained above for electric motors, MIN will be addressed in a separate rulemaking.

Advanced Energy and the CA IOUs supported the proposed certification reporting requirements for small electric motors. (Advanced Energy, No. 8 at p. 9; CA IOUs, No. 13 at pp. 2-3)

Baldor questioned whether there is a requirement that a manufacturer obtain approval of compliance from DOE before entering any small electric motor into commerce. (Baldor, No. 11 at p. 7) DOE confirms that it does not issue any notice of approval once a manufacturer has certified compliance of its basic models. Manufacturers are responsible for ensuring that their products are compliant with the applicable provisions found at 10 CFR parts 429 and 431. As part of the certification report, DOE requires a manufacturer to submit a compliance statement acknowledging its responsibility.

Baldor asked why DOE is requiring the representation of the represented total losses for small electric motors since efficiency and losses are directly related by a simple mathematical expression. (Baldor, No. 11 at p. 5) DOE is not adopting the requirements based on total losses for small electric motors and electric motors to reduce certification

burden. Otherwise, DOE is maintaining the product-specific certification requirements for small electric motors.

DOE proposed to require manufacturers of small electric motors to submit the first certification report 90 days after publication of a final rule. Baldor asked for clarifications with regards to the 90-day period and expressed concerns that manufacturers would have to submit a certification report before the compliance date of an energy conservation standard. (Baldor, No. 11 at p. 5) Pursuant to 10 CFR 429.12(i), a manufacturer is not required to submit a certification report for a product not subject to an energy conservation standard, e.g., prior to the compliance date for the standard. On or after the standards compliance date, however, a manufacturer of any basic model of small electric motor must submit a certification report for the basic model prior to its distribution in commerce.

UL recommends that small electric motors would need a least a year to 18 months to submit certification reports because most manufacturers do not have AEDMs that are sufficiently accurate. Further, UL contends, this amount of time is needed to obtain samples and conduct the required testing. (UL, No. 9 at p. 11)

In general, DOE requires represented values to be determined by the application of basic statistical concepts. Baldor requested DOE clarify some of these concepts. Specifically, Baldor commented that the term “population” used in the definition of average full-load efficiency was unclear. (Baldor, No. 1 at p. 2) Roger Daugherty commented that the proposed § 429.64 refers to a “represented value of full-load

efficiency” and not to “represented value of average full-load efficiency” or “average full-load efficiency”, raising the risk of confusion as to what efficiency value is the basis for the sampling test. (Roger Daugherty, No. 15 at p. 14) NEMA commented that DOE should abandon the use of the term “represented full-load efficiency.” (NEMA, No. 10 at p. 9) Having considered these comments, and to minimize confusion, DOE will use the term “represented value of average full-load efficiency” for small electric motors.

As Baldor states, testing all the units of a basic model to determine the mean of the full-load efficiency of the total population may not always be practical. (Baldor, No. 1 at pp. 2 and 3) DOE understands this manufacturer burden and, in keeping with broadly accepted statistical concepts, only requires manufacturers to test a sample of the population in order to make inferences about the basic model’s population as is currently required at 10 CFR 431.445(c)(2). In this rule, DOE is moving the sampling provisions to 10 CFR 429.64 and will consider whether to adopt a different approach in a future rulemaking.

As DOE has moved and not amended (except to reorder the equation as described above) certification sampling requirements for small electric motors, and has largely retained the AEDM provisions for small electric motors (see section III.B for additional details on AEDMs), DOE does not agree with UL that it would take a year to 18 months for small electric motor manufacturers to submit certification reports. In today’s rule, DOE is requiring small electric motors manufacturers to certify compliance 90 days after the publication of this rule.

3. Definitions

In the June 2016 NOPR, for electric motors, DOE proposed to amend the definition of “basic model” to make it similar to the definitions used for other DOE-regulated products and equipment, and to eliminate an ambiguity found in the current regulation. DOE proposed to clarify that the concept of a “basic model” reflects the categorization in effect under the prevailing standard, as it stands today and as it may evolve in future rulemakings. DOE proposed that 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 are part of the same equipment class, have electrical characteristics that are essentially identical, and do not have any differing physical or functional characteristics that affect energy consumption or efficiency.

In addition, DOE proposed to replace the term “rating” with the term “equipment class,” which was defined as one of the combinations of an electric motor's horsepower (or standard kilowatt equivalent), number of poles, and open or enclosed construction, with respect to which 10 CFR 431.25 prescribes nominal full-load efficiency standards.

As with electric motors, for small electric motors, the proposal would revise the existing definition of “basic model” to make it similar to the definitions used for other DOE-regulated products and equipment. The existing “basic model” definition for small electric motors found at 10 CFR 431.442 would be amended so that the term “rating” and its definition in the current regulations is replaced with the term “equipment class” and its

accompanying definition. The current language about a “basic model” having essentially identical electrical characteristics without any differing physical or functional characteristics that affect energy consumption or efficiency is retained in the proposed “basic model” definition.

As stated in the previous paragraph, DOE proposed to replace the term “rating” with the term “equipment class” in 10 CFR 431.442. Similar to the “ratings” concept currently in DOE’s “basic model” definition, each small electric motor “equipment class” would be the combination of each small electric motor design (i.e., capacitor-start, capacitor-run; capacitor-start, induction-run; or polyphase), horsepower (or standard kilowatt equivalent), and number of poles, for which 10 CFR 431.446 prescribes average full-load efficiency standards.

DOE did not receive any comments in response to its proposal to amend the definition of basic model and add a definition for equipment class for electric and small electric motors. In this rule, DOE is finalizing definitions for these terms that provide clarity and incorporate the proposed changes.

B. Alternative Methods for Determining Energy Efficiency or Energy Use

Under current DOE regulations for both electric motors and small electric motors, a manufacturer can determine that the electric motor or small electric motor complies with energy conservation standards either through testing or through the use of an alternative efficiency determination method (AEDM) for determining energy efficiency or energy use that meets the requirements of 10 CFR 431.17(a)(2) and (3) for electric

motors or 10 CFR 431.445(a)(2) and (3) for small electric motors. In the June 2016 NOPR, DOE proposed to retain these AEDM-based options but to move them from 10 CFR 431.17 and 10 CFR 431.445 to 10 CFR 429.70, the location of the AEDM provisions for other covered products and equipment. Moreover, DOE proposed to adjust the structure of the AEDM requirements for electric motors and small electric motors to more closely conform to the general format of the other 10 CFR 429.70 provisions, including appropriate references to other sections of part 429 and part 431 where required, although the requirements for using an AEDM for electric motors and small electric motors would effectively remain the same. Further, DOE proposed to change the term “substantiation” to “validation” to better align the relevant terminology with the AEDM provisions in 10 CFR 429.70. DOE proposed to modify one of the requirements for selecting small electric motor basic models for validation testing. Finally, DOE proposed that manufacturers using an AEDM in lieu of testing would be required to rate their motors using an AEDM and certify compliance of their basic models through a nationally recognized certification program for those basic models of electric motors and small electric motors not tested.

Advanced Energy recommended that validation of AEDM be carried out only by comparing test results in NIST/NVLAP accredited test labs and stated this requirement should be made explicit. (Advanced Energy, No. 8 at p. 7)

DOE appreciates Advanced Energy’s recommendation. In this rule, DOE is largely retaining the current certification testing requirements for electric motors and small electric motors. Therefore, for electric motors, all validation testing would need to

be conducted at an accredited lab for which the accreditation body was NIST/NVLAP, a laboratory accreditation body having a mutual recognition arrangement with NIST/NVLAP, or an organization classified by the Department as an accreditation body. Currently, and in today's rule, small electric motors are not required to conduct testing at an accredited lab. In the June 2016 NOPR, DOE proposed to amend the certification testing requirements for electric motors and small electric motors and, in a separate rulemaking, DOE will address how NVLAP accreditation may play a role in certification, including validation, testing.

As part of the proposal to move the AEDM provisions to 10 CFR 429.70, DOE reorganized these provisions for clarity. As previously stated, DOE proposed to use the term "validation" instead of "substantiation." 10 CFR 429.70(h)(2) and 10 CFR 429.70(i)(2) in this final rule specify how to validate an AEDM for electric motors and small electric motors, respectively. As proposed, each section stated how many basic models are required for validation, explicitly referenced the appropriate test procedure, and explained how the test results must compare to the results produced by the AEDM. More specifically, DOE proposed that §§ 429.70(h)(2)(iii) and 429.70(i)(2)(iii) require that the predicted full-load efficiency for each basic model calculated by applying an AEDM must not be more than five percent greater than the measured average full-load efficiency determined from the testing of that basic model.

Roger Daugherty commented that he did not understand how DOE can expect to reasonably compare within 5 percent the results of an AEDM based on calculating the average value of full-load efficiency to the test results where it is required that the test

results confirm the represented value of efficiency. Roger Daugherty also asked if DOE actually intended the tolerance to be based on total losses. (Roger Daugherty, No. 15 at p. 17)

NEMA requested DOE clarify the tolerance that is applied to validation testing. Specifically, NEMA asked if DOE is proposing 5 percentage points plus average full-load efficiency or 1.05 multiplied by the average full-load efficiency. NEMA commented that the present tolerance of plus or minus ten percent of the measured mean total power loss that as specified in 10 CFR 431.17(a)(3) is appropriate. Alternatively, NEMA also finds acceptable the tolerance of plus five percent of the measured average full-load efficiency that is proposed by the NOPR to be incorporated into 10 CFR 429.70(h)(2). (NEMA, No. 10 at p. 25-26)

As previously explained, DOE proposed in the June 2016 NOPR to require that predicted average full-load efficiency for each basic model be calculated by applying an AEDM that must not be more than five percent greater than the measured average full-load efficiency determined from the testing of that basic model. However, after reviewing the comments from NEMA and Daugherty, DOE decided to base the verification testing on a 10 percent losses tolerance similar to the requirement described in 10 CFR 431.17(a)(3) and 10 CFR 431.445(b)(3). However, DOE is adopting a one sided tolerance in today's rule as opposed to the two sided tolerance specified in 10 CFR 431.17(a)(3) and 10 CFR 431.445(b)(3). DOE is adopting the following requirement: The predicted full-load losses for each such basic model calculated by applying the AEDM must not be greater than ten percent below the average full-load losses based on the measured full-

load losses. This modification will allow manufacturers to decide how conservative the AEDM they use should be.

In the June 2016 NOPR, DOE did not propose to change the requirement that at least five units of each basic model must be tested to validate an AEDM. DOE explained that this proposal continues to ensure that an AEDM is based on testing of at least five units of at least five basic models. NEMA, Baldor, Advanced Energy, and Roger Daugherty commented that selecting five basic models and testing five units of each of those basic models as proposed in the text in 429.70.(h) and (i) should be retained as sufficient for validation of an AEDM. (NEMA, No. 10 at p.7; Baldor, No. 11 at p. 4; Advanced Energy, No. 8 at p. 7; Daugherty, No. 15 at p. 12) Therefore, DOE is retaining the requirement that five basic models must be tested to validate an AEDM.

In addition to reorganizing the AEDM provisions for small electric motors, DOE proposed to modify one of the requirements for selecting small electric motor basic models for validation testing. Currently, small electric motor manufacturers must adhere to the provisions in 10 CFR 431.445(c)(1) to select basic models for validation testing. One of these provisions states that at least one basic model is selected from each of the frame number series for which the manufacturer is seeking compliance. DOE proposed to change that language to better align with the requirements for electric motors by amending the requirement to state that no two basic models may have the same frame number series. DOE explained that this proposed language would reduce small electric motor manufacturer testing burdens because it would not require a manufacturer to test

more than five motor basic models even if the manufacturer is validating an AEDM that will apply to more than five frame number series of motors.

DOE received comments disagreeing with DOE's proposal to modify the validation testing requirements for small electric motors to state that no two basic models may have the same frame number series. NEMA, Baldor, Nidec, and Roger Daugherty commented that there are only three frame sizes and therefore manufacturers could not satisfy the condition that no two basic models may have the same frame number series when selecting five basic models. (NEMA, No. 10 at p.7; Baldor, No. 11 at p. 7; Nidec, No. 12 at p. 2; Roger Daugherty, No. 15 at p. 16) NEMA suggested DOE maintain the current wording appearing in §431.445(5)(c)(1)(i) with respect to small electric motor basic model selection. (NEMA, No. 10 at p. 7) Baldor agreed with NEMA's comment. (Baldor, No. 11 at p. 7)

DOE appreciates the comments from NEMA, Baldor, Nidec, and Roger Daugherty. As these commenters indicate, small electric motors only have three frame sizes and therefore it is not possible for each of the five basic models used to validate an AEDM to have a different frame size. In light of these practical considerations, DOE agrees with NEMA's and Baldor's recommendation. In today's rule, DOE is retaining the requirement for small electric motors that at least one basic model is selected from each of the frame number series. However, in addition to moving this text to 10 CFR 429.70(i)(3)(i)(C), DOE is slightly modifying the requirement which currently reads, "At least one basic model should be selected from each of the frame number series for which the manufacturer is seeking compliance" to "At least one basic model is selected from

each of the frame number series for which the manufacturer is seeking to validate its AEDM.”

DOE proposed that manufacturers using an AEDM in lieu of testing would be required to rate their motors using an AEDM and certify compliance of their basic models through a nationally recognized certification program for those basic models of electric motors and small electric motors. Advanced Energy and UL concurred with the changes for validation testing requirements for small electric motors. (Advanced Energy, No. 8 at p. 11; UL, No. 9 at p. 9) Advanced Energy added that the certification report should simply identify the certification program being used and the certificate of conformity be available on request. (Advanced Energy, No. 8 at p. 4)

When using an AEDM to determine the efficiency of a basic model, NEMA and Baldor commented that it was unnecessary to require that a third-party certification program certify that the efficiency of that basic model because the AEDM is already subject to requirements that ensure the accuracy of its results. (NEMA, No. 10 at p. 6; Baldor, No. 11 at p. 3) Roger Daugherty commented that he saw no reason why the results of an AEDM that has been validated as to its accuracy would need to be passed through a third-party for certification. Roger Daugherty also commented that DOE had not proposed language in part 429 describing what a certification program would do when used in combination with an AEDM. (Roger Daugherty, No. 15 at p. 3 and 11)

DOE does not consider that the requirements of an AEDM would satisfy the statutory requirement prescribing that manufacturers must certify electric motors as

compliant with the applicable standard through the use of an “independent testing or certification program nationally recognized in the United States.” (42 U.S.C. 6316(c)). Therefore, DOE believes that when using an AEDM, the results of the AEDM must be certified by a third-party certification program that is nationally recognized in the United States under 10 CFR 429.73 of this proposal. DOE is maintaining the requirement for third-party certification as described in 10 CFR 429.63(a)(3).

Further, DOE agrees with Advanced Energy’s comment and will require that manufacturers identify the certification program being used and require that the certificate of conformity be available on request.

Roger Daugherty also commented that it could be a problem if a third-party has to certify the average full-load efficiency output by an AEDM when the reporting requirements state that the represented value of energy efficiency must be certified. (Roger Daugherty, No. 15 at p. 17). DOE clarifies that the third-party certification program would be responsible for certifying the represented value of energy efficiency.

C. Enforcement Provisions for Electric Motors and Small Electric Motors

As for other types of covered products and equipment, DOE's current regulations for electric motors in part 431 prescribe an enforcement process through which DOE determines whether an electric motor manufacturer is in violation of the energy conservation requirements of EPCA. The enforcement provisions for electric motors are currently located at 10 CFR part 431, subpart U. These provisions identify prohibited acts

that may subject a manufacturer to civil penalties if the manufacturer is found by DOE to have committed them knowingly. These prohibited acts include distribution in commerce of an electric motor that does not comply with the applicable energy conservation standard. Subpart U also details an enforcement process DOE uses to determine whether a particular motor complies with the applicable energy efficiency standards, the conditions under which a manufacturer must cease distribution of a basic model, remedies for addressing cases of noncompliance, and a process for the assessment and recovery of civil penalties. These provisions are similar to the general enforcement provisions applicable to other types of products and equipment, including small electric motors, which are found in 10 CFR part 429, subpart C.

In the June 2016 NOPR, DOE proposed to apply the same enforcement provisions in subpart C to part 429 that apply to all other types of covered products and equipment to electric motors and small electric motors. These provisions are similar to the current provisions for electric motors in subpart U to part 431, but with certain specific differences, as described in the following sections. There are also several proposed prohibited acts regarding electric motors and small electric motors that reflect the unique statutory provisions for each type of equipment. The proposed rule removed the enforcement provisions currently in place for electric motors from 10 CFR part 431, subpart U, moved them to 10 CFR 429.110, and moved the enforcement sampling

provisions to a new appendix D¹³ to subpart C of part 429. DOE proposed to reserve subpart U.

10 CFR 431.383 specifies that DOE must use the statistical sampling procedures set forth in appendix A to subpart U to determine that a manufacturer's basic model complies with its labeled efficiency or the applicable energy efficiency standard. Roger Daugherty commented that in the present appendix A to subpart U of part 431, the sampling plan for enforcement is relative to “applicable EPCA nominal full-load efficiency when the test is to determine compliance with the applicable statutory standard, or is the labeled nominal full-load efficiency when the test is to determine compliance with the labeled efficiency value.” Roger Daugherty’s comment is referring to the RE term used in equations 4, 5, 7, and 8 in appendix A to subpart U of part 431. That is, when testing to determine if a basic model complies with the applicable energy efficiency standard, RE is equal to the applicable EPCA nominal full-load efficiency, and when testing to determine if a basic model complies with its labeled efficiency, RE is equal to the labeled nominal full-load efficiency. Mr. Daugherty commented that the sampling plan in the proposed appendix is relative to “the applicable standard full-load efficiency when the test is to determine compliance with the applicable statutory standard, or is the represented average full-load efficiency when the test is to determine compliance with the labeled efficiency value.” According to 10 CFR 431.12, he continued, the type of efficiency applicable to electric motors is “nominal full-load

¹³ In the June 2016 NOPR, DOE proposed to move the motors enforcement sampling provisions to a new appendix D to subpart C of part 429. For editorial reasons, DOE is moving the motors enforcement sampling provisions to a new appendix E to subpart C of part 429. Therefore, this rule refers to appendix E in reference to the standards enforcement sampling provisions for electric motors and small electric motors.

efficiency” not “average full-load efficiency,” which is a term that DOE introduced relative only to small electric motors in 10 CFR 431.442. Roger Daugherty commented that there is no value of “represented average full-load efficiency” stated by manufacturers for electric motors and that this change in the sampling plan would create confusion for stakeholders. (Roger Daugherty, No. 15 at p.7)

DOE agrees that the terminology used in the proposed appendix D (now appendix E) may be confusing specifically as it relates to the “RE” term. Therefore, in today’s rule, DOE is removing the condition in appendix E where “RE” is equal to the represented average full-load efficiency. Because RE in appendix A to subpart U of part 431 is used to refer to two entirely different values depending on whether testing is being conducted to evaluate compliance with standards or to evaluate the accuracy of the labeled efficiency, DOE will use appendix E to subpart C of part 429 only to determine compliance with the applicable energy conservation standard for electric motors or small electric motors. Therefore, in appendix E, DOE is substituting the abbreviation “ECS” for “RE” to denote the applicable energy conservation standard, i.e., applicable nominal full-load efficiency level for electric motors and applicable average full-load efficiency level for small electric motors.

1. Prohibited Acts and Remedies

The prohibited acts provisions currently applicable to electric motors differ somewhat from those of other covered products and equipment, namely, by describing specific prohibited acts related to violations of the labeling and advertisement requirements applicable to electric motors. Thus, in the June 2016 NOPR, DOE proposed

to add these prohibited acts, which are currently listed in 10 CFR 431.382(a)(1), (2), and (4), to 10 CFR 429.102. The inclusion of electric motors in 10 CFR 429.102 would also clarify that four additional prohibited acts not currently specified in 10 CFR 431.382 also apply to electric motor manufacturers. As discussed in the March 7, 2011 CCE final rule (see 76 FR 12422, 12440), these four prohibited acts are within the scope of the prohibited acts specified in EPCA at 42 U.S.C. 6302 (See 42 U.S.C. 6316(a)).¹⁴

EPCA provides that the prohibited acts in 42 U.S.C. 6302 apply to small electric motors (and distribution transformers and high-intensity discharge (“HID”) lamps for which standards are set pursuant to 42 U.S.C. 6317). (42 U.S.C. 6316(a)). Prohibited acts at 42 U.S.C. 6302(a) (i.e., distributing in commerce new products/equipment that are not labeled as required and removing or rendering illegible any required label) do not apply to small electric motors because these prohibitions only apply to types of equipment with labeling provisions promulgated pursuant to 42 U.S.C. 6294, and small electric motor labeling provisions are promulgated pursuant to section 6317. Accordingly, in 42 U.S.C. 6317(f)(1)(A), Congress created prohibited acts identical in effect to those found at section 6302(a)(1) and (2) that apply to small electric motors (and distribution transformers and HID lamps). Therefore, as proposed, it would be a prohibited act for

¹⁴ These include prohibitions against the following actions: failure to test any covered product or covered equipment subject to an applicable energy conservation standard in conformance with the applicable test requirements prescribed in 10 CFR parts 430 or 431 (429.102(a)(2)); deliberate use of controls or features in a covered product or covered equipment to circumvent the requirements of a test procedure that produce test results that are unrepresentative of a product’s energy or water consumption if measured pursuant to DOE’s required test procedure (429.102(a)(3)); distribution in commerce by a manufacturer or private labeler of a basic model of covered product or covered equipment after a notice of noncompliance determination has been issued to the manufacturer or private labeler (429.102(a)(7)); and knowing misrepresentation by a manufacturer or private labeler by certifying an energy use or efficiency rating of any covered product or covered equipment distributed in commerce in a manner that is not supported by test data (429.102(a)(8)).

any manufacturer or private labeler to distribute in commerce a unit that is not labeled as required by 10 CFR 429.76, and it would be a prohibited act for a manufacturer or private labeler to remove or render illegible any label required by 10 CFR 429.76. These prohibited acts, which are identical to existing prohibited acts for electric motors that are proposed to be moved to paragraphs 11 and 12 at 10 CFR 429.102, would become enforceable with respect to small electric motors six months after publication of a final rule requiring labeling of small electric motors. In the June 2016 NOPR, DOE also proposed to add a new paragraph 14 to the list of prohibited acts at 10 CFR 429.102 as follows: For any manufacturer or private labeler of a small electric motor to distribute in commerce any small electric motor required by § 429.76 to be labeled that is not in conformity with the relevant energy conservation standard found at 10 CFR 431.446. Again, this would become enforceable based on the publication date of a final rule requiring labeling of small electric motors. The June 2016 NOPR proposed to add labeling requirements for small electric motors, but DOE intends to address these requirements in a separate notice. At such time, DOE will also reconsider the proposed prohibitions with regard to small electric motor labeling that were proposed in the June 2016 NOPR. DOE also notes that the prohibited act of restricting representations of electric motors in advertising materials (now at 10 CFR 429.102(a)(13)) does not apply to small electric motors.

DOE did not receive any comments on its proposal related to prohibited acts for electric motors and small electric motors. Therefore, with the exception of prohibited acts related to labeling of small electric motors, the prohibited acts in 10 CFR 429.102 apply to both electric motors and small electric motors. In addition, for the aforementioned

reasons DOE is adding three additional prohibited acts to 10 CFR 429.102. Specifically, manufacturers and private labelers are prohibited from distributing in commerce any covered equipment that is not labeled in accordance with 10 CFR 429.76. Manufacturers, distributors, retailers, and private labelers are prohibited from removing or rendering illegible from any covered equipment any label required to be provided under 10 CFR 429.76. Manufacturers, distributors, retailers, and private labelers are prohibited from advertising electric motors in a catalog from which the equipment may be purchased, without including in the catalog all information as required by 10 CFR 429.76(b), provided, however, that this shall not apply to an advertisement of an electric motor in a catalog if distribution of the catalog began before the effective date of the labeling rule applicable to that motor.

2. Test Notices

10 CFR 431.383 contains the enforcement process for electric motors, which is conducted when a basic model is suspected of noncompliance with the applicable standard. Paragraph (a)(1) of this section requires DOE to provide formal notification to a manufacturer that DOE has received information that one of the manufacturer's basic models may not comply with the applicable efficiency standard and that DOE intends to test the basic model to assess its compliance. This paragraph specifies that a test notice may only be issued after the Secretary or his or her designated representative has examined the underlying test data (or, where appropriate, data as to use of an AEDM) provided by the manufacturer and after the manufacturer has been offered the opportunity to meet with the Department to verify, as applicable, compliance with the applicable efficiency standard, or the accuracy of labeling information, or both. DOE eliminated this

process for all other types of products and equipment in the March 2011 CCE rule. For the same reasons stated in that rulemaking (see 76 FR at 12434-12435), in the June 2016 NOPR, DOE proposed to adopt for electric motors the process used in enforcement actions for other types of products or equipment. DOE did not receive any comments on its proposal related to test notices. Therefore, this final rule adopts for electric motors the test notice process used in enforcement actions as described in 10 CFR 429.110.

3. Enforcement Testing

In the event that DOE has reason to believe an electric motor is noncompliant with the applicable energy conservation standard, DOE may test that electric motor to verify whether it complies with the applicable standard. This process for electric motors currently is specified at 10 CFR 431.383. For all other products and equipment covered by DOE energy conservation standards, the enforcement testing process is in 10 CFR 429.110. DOE intends to apply the requirements of 10 CFR 429.110 to electric motors in place of 10 CFR 431.383, which would alter the process by which enforcement testing is conducted for electric motors in certain respects. In addition to the process for issuing test notices, DOE notes that using 10 CFR 429.110 in place of 10 CFR 431.383 would result in the following changes: the maximum number of units that may be tested would increase from 20 to 21 units; enforcement testing would only be conducted by a laboratory that is accredited to the International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC), “General requirements for the competence of testing and calibration laboratories,” ISO/IEC 17025:2005(E); and testing of additional unit(s) as a result of a defective unit in the initial sample would be at DOE's discretion.

In addition, 10 CFR 431.383(f) currently allows a manufacturer to request that DOE conduct additional testing (at the manufacturer's expense). DOE did not propose to retain this provision in the June 2016 NOPR, as the additional testing is not allowed for any other covered products or equipment. As stated in the March 7, 2011 CCE final rule, the Department removed the regulatory provision allowing manufacturers to request additional testing because it is both unnecessary—given that manufacturers are free to perform additional testing on their own at any time—and otherwise delays the finality of a compliance determination. 76 FR at 12438. Therefore, once a product has been found noncompliant by DOE as a result of this process, there would be no further option for additional testing.

DOE did not receive any comments opposing DOE's proposal to increase the maximum sample size to 21 units, require enforcement testing to be conducted at lab accredited to ISO/IEC 17025:2005(E), use its discretion to conduct additional testing as a result of a defective unit, and no longer allow additional enforcement testing at the manufacturer's expense. DOE is adopting these provisions in this rule.

Regarding enforcement sampling, DOE proposed to move the current enforcement sampling plan for electric motors to a new appendix to subpart C of part 429. DOE proposed to modify the new appendix to reflect the maximum number of units that may be tested is 21. Additionally, DOE proposed to make these enforcement sampling provisions applicable to small electric motors. DOE did not receive any comments regarding its proposal and is adopting these provisions in today's rule.

DOE proposed to insert the formulas from 10 CFR 431.17(b)(2)(i) and (ii) into a new section 10 CFR 429.138, which would contain product-specific provisions dealing with verification of representations. Because part 429 currently does not address any products with labeling requirements, DOE has no parallel provisions. This provision would be used to evaluate whether a representation is permitted for purposes of the prohibited acts related to labeling and representations.

NEMA commented that DOE's proposal to include the formulas from 10 CFR 431.17(b)(2)(i) and (ii) in 10 CFR 429.138 for the purposes of the prohibited acts related to labeling is in conflict with the sampling plan for labeling in the appendix to subpart C of part 429 when represented nominal full-load efficiency (RE) is the represented average full-load efficiency. Further, NEMA commented that the proposed sampling plan in §429.138 is missing all of the associated details as found in the NOPR for the other sampling plans. NEMA commented it did not understand the purpose of this new sampling plan nor why the test condition on the value of RE is different from that in the other sampling plans when RE is the same referenced nominal full-load efficiency. (NEMA, No. 18 at p. 3) Baldor added that the requirements in 10 CFR 429.138 for determining compliance with labeling requirements is in conflict with Appendix E to subpart C of part 429. Further, Baldor contended that the proposed sampling plan in §429.138 is missing the appropriate detail. Baldor expressed confusion over the sampling plans and the "RE" term used in each plan. (Baldor, No. 11 at p. 4)

Roger Daugherty commented DOE should clarify when the equations at 10 CFR 429.138 would apply and what type of sampling would be required. Roger Daugherty

added that the value of RE is identified as the “represented nominal full-load efficiency” and asked if the “represented nominal full-load efficiency” refers to the nameplate value of NEMA nominal full-load efficiency. (Roger Daugherty, No. 15 at p. 13)

DOE agrees that the proposed provisions to verify representations at 10 CFR 429.138 would conflict with the sampling plan in the appendix to subpart C of part 429. Therefore, the new Appendix E to subpart C of part 429 will only be used to determine compliance with the applicable energy conservation standard for electric motors or small electric motors. In response to NEMA’s, Baldor’s, and Roger Daugherty’s comments regarding sampling, DOE has added specificity regarding unit selection and testing, similar to that provided for standards enforcement testing in 10 CFR 429.110(a)-(e). DOE notes that it would typically verify representations in conjunction with enforcement testing in which case the standards enforcement provisions in 10 CFR 429.110(a)-(e) would control. DOE clarifies that the term “represented nominal full-load efficiency” refers to the nameplate nominal full-load efficiency and certified nominal full-load efficiency. In today’s rule, DOE is inserting the formulas from 10 CFR 431.17(b)(2)(i) and (ii) into a new paragraph (f) of 10 CFR 429.110 in order to verify representations for electric motors.

For small electric motors, 10 CFR 431.445 presents a formula for evaluating compliance. DOE proposed to retain this approach in the appendix in subpart C of part 429 , as it better ensures that DOE bases any final determination of compliance on a sufficiently large sample size and mitigates the risk of incorrect determinations of noncompliance. DOE requested comments regarding whether the formula currently in 10

CFR 431.445 should be retained for evaluation of representations, similar to the provision for electric motors that DOE has proposed to move to 10 CFR 429.138.

Advanced Energy commented that the formula in 10 CFR 431.445 should be retained in the proposed new appendix. (Advanced Energy, No. 8 at pp. 10) UL stated that they support having defined thresholds for the purpose of determining efficiency. UL explained that it would help third parties to consistently identify motors that meet the minimum acceptable thresholds defined by DOE. UL also commented that they recommend the use of a single formula constant across all products for determination of efficiency. UL suggested 1.05 or 1.15 in their comments. (UL, LLC No. 4 at pp. 8)

NEMA commented that they believe DOE should use the formulas at 10 CFR 431.17(b)(2)(i) and (ii) for evaluation of representations. (NEMA, No. 10 at pp. 10) Baldor Electric agreed with NEMA's comments. (Baldor, No. 11 at pp. 6)

Roger Daugherty commented that the formulas in 10 CFR 431.445 are written relative to "the required average full-load efficiency" and that DOE has not defined what this term related to. Further, Roger Daugherty commented that if a section for small electric motors is created as similar to that of 10 CFR 429.138 for electric motors, then it will also be missing all of the details as to when the sampling plan is used, why it is used, how it is performed, etc. (Roger Daugherty, No. 15 at pp. 15-16)

In today's rule, DOE maintains that the sampling plan expressed in the new Appendix E is best suited for determining compliance with the applicable energy

conservation standards for small electric motors because it mitigates the risk of incorrect determinations of noncompliance by accounting for a sufficiently large sample size. DOE disagrees with UL's suggestion to use a 5% or 15% threshold for determining compliance because such a tolerance effectively lowers the energy conservation standard.

In light of NEMA's, Baldor's, and Advanced Energy's comments, DOE is applying the same provisions in the new paragraph (f) of 10 CFR 429.110 to verify efficiency representations for small electric motors. This section will include the formulas from 10 CFR 431.17(b)(2)(i) and (ii) as suggested by NEMA and Baldor.

In response to Roger Daugherty's comments, DOE clarifies that it would amend the formulas used to verify the efficiency representations for small electric motors in order to refer to the appropriate metric, average full-load efficiency. Again, DOE has added text similar to that in 429.110 to address these concerns but notes that DOE would typically perform testing under 10 CFR 429.110.

4. Notices of Noncompliance and Penalties

When DOE determines that a basic model of a covered product or type of covered equipment does not comply with the applicable energy conservation standard, or if a manufacturer or private labeler determines that a basic model is noncompliant, 10 CFR 429.114 provides that DOE may issue a notice of noncompliance determination to the manufacturer. This notice explains to the manufacturer its obligations to: (1) immediately cease distribution of the basic model; (2) immediately notify in writing those individuals to whom units of the basic model have been distributed about the finding of

noncompliance; and (3) provide DOE with pertinent records about the manufacture and distribution of units of the basic model within 30 days of the date of the notice.

Similarly, 10 CFR 431.385 requires electric motor manufacturers to: (1) immediately cease distribution of the noncompliant basic model; (2) give immediate written notification of the determination of noncompliance to all persons to whom the manufacturer has distributed units of the basic model; and (3) provide DOE, within 30 calendar days of the notification, records, reports and other documentation pertaining to the acquisition, ordering, storage, shipment, or sale of a basic model determined to be in noncompliance. An electric motor manufacturer's obligations immediately after a determination of noncompliance would, therefore, be unchanged by applying the provisions of 10 CFR 429.114 to electric motors in place of 10 CFR 431.385.

Actions required following a finding of noncompliance are similar in scope between subpart U of part 431 and subpart C of part 429, except for certain minor differences. Section 431.385 provides, in paragraph (a)(4), that a manufacturer may modify a noncompliant model in such manner as to bring it into compliance with the applicable standard. Such modified basic model would then be treated as a new basic model and must be certified in accordance with the provisions of Subpart U, except that, in addition to satisfying those requirements, the manufacturer must also maintain records that demonstrate that modifications have been made to all units of the new basic model prior to distribution in commerce. These requirements are identical to those in 10 CFR 429.114(d), except that the latter also requires that, after modifying a basic model to be compliant with DOE standards, the manufacturer must also assign new individual

model numbers to the models within the basic model. This requirement would also apply to electric motors as a result of the changes in the proposed rule.

Section 429.116 requires that, if DOE determines that independent, third-party testing is necessary to ensure a manufacturer's compliance with the rules of part 429 or part 431, a manufacturer must base its certification of a basic model under subpart B of part 429 on independent, third-party laboratory testing. No such provision exists in subpart U of part 431, but DOE proposed to apply this provision to electric motors. Additionally, under section 10 CFR 431.386 and 10 CFR 429.118, DOE has the option to seek a judicial order to stop distribution of a noncompliant model and may assess civil penalties for violations of such provisions. However, 10 CFR 429.118 allows the use of an injunction for the purposes of enjoining any prohibited act, while 10 CFR 431.386 applies only to distribution in commerce of noncompliance models. In the June 2016 NOPR, DOE proposed to apply the broader injunctive authority in 10 CFR 429.118 to electric motors. Finally, both subpart C of part 429 and subpart U of part 431 define processes for assessing and collecting civil penalties. Except for minor differences in wording and the format of statutory references, the process in 10 CFR 431.387, which currently applies to electric motors, and 10 CFR 429.122 through 10 CFR 429.132, which apply to other products and equipment, are substantially the same. Thus, DOE proposed to apply these sections of part 429 to electric motors.

DOE did not receive any comments regarding its proposal to make electric motors and small electric motors subject to the provisions in 10 CFR 429.114 through 10 CFR 429.132. In this rule DOE is removing the sections related to notices of noncompliance

and penalties from 10 CFR part 431 and electric motors and small electric motors will be subject to the provisions in 10 CFR 429.114 through 10 CFR 429.132.

IV. Procedural Issues and Regulatory Review

A. Review Under Executive Orders 12866 and 13563

The Office of Management and Budget (OMB) has determined this regulatory action is not a “significant regulatory action” under section 3(f) of Executive Order 12866. Accordingly, this action was not subject to review under that Executive Order by the Office of Information and Regulatory Affairs (“OIRA”) of the Office of Management and Budget (“OMB”). DOE has also reviewed this regulation pursuant to Executive Order 13563, issued on January 18, 2011. 76 FR 3281 (January 21, 2011). Executive Order 13563 is supplemental to and explicitly reaffirms the principles, structures, and definitions governing regulatory review established in Executive Order 12866.

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires preparation of an initial regulatory flexibility analysis (IRFA) and a final regulatory flexibility analysis (FRFA) for any rule that by law must be proposed for public comment, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. As required by Executive Order 13272, “Proper Consideration of Small Entities in Agency Rulemaking,” 67 FR 53461 (Aug. 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 rulemaking process. 68 FR 7990. DOE has made its procedures and policies available on the Office of the General Counsel's website (<http://energy.gov/gc/office-general-counsel>). DOE has prepared the following FRFA for the products that are the subject of this rulemaking.

For manufacturers of electric motor and small electric motors, the SBA has set a size threshold, which defines those entities classified as "small businesses" for the purposes of the statute. DOE used the SBA's small business size standards to determine whether any small entities would be subject to the requirements of the rule. (See 13 CFR part 121.) The size standards are listed by North American Industry Classification System (NAICS) code and industry description and are available at <http://www.sba.gov/content/table-small-business-size-standards>. Electric motor and small electric motor manufacturing is classified under NAICS 335312, "Motor and Generator Manufacturing." The SBA sets a threshold of 1,000 employees or less for an entity to be considered as a small business for this category.

DOE reviewed the certification and reporting requirements in this rule under the provisions of the Regulatory Flexibility Act and the procedures and policies published on February 19, 2003. This rule would make certain amendments to the existing certification requirements applicable to electric motors and would establish certification requirements for small electric motors. The changes adopted in this rule would may have limited impacts on electric motor manufacturers who will be required to submit annual certification reports, and have potential impacts on small electric motor manufacturers

who must commence certification of products subject to an energy conservation standard. For small electric motor manufacturers, DOE believes that the final certification requirements affecting these entities will result in reporting and record-keeping burdens commensurate with the estimates presented in DOE's review under the Paperwork Reduction Act, as discussed in section IV.C of this final rule.

DOE estimates that there are 13 small business manufacturers of electric motors and 9 of those manufacturers also make small electric motors. The estimate for small business manufacturers of electric motors is based upon the regulatory flexibility analysis conducted as part of the May 29, 2014 final rule establishing amended energy conservation standards for electric motors (79 FR 30934). In that rule, DOE calculated the number of electric motor manufacturers, including the number of manufacturers qualifying as small businesses, based on interviews with electric motor manufacturers and publicly available data. Since the promulgation of this rule, and after further examining the motor industry, which included surveying the motor industry and determining the number of manufacturers remaining, DOE has not discovered the presence of any new manufacturers of electric motors that would necessitate a change to this previous estimate. The estimate for small manufacturers of small electric motors is based on a market survey of publicly available information. DOE evaluated the manufacturers identified in the March 9, 2010 final rule establishing energy conservations standards for small electric motors (75 FR 10874) and manufacturers of electric motors identified in the May 2014 final rule (79 FR 30934) for product offerings meeting the definition of a small electric motor. From its market survey, DOE identified

that 9 of the 13 small manufacturers of electric motors also manufacture small electric motors.

DOE then determined the expected impacts of the rule on affected small businesses and whether an FRFA was needed (i.e., whether DOE could certify that this rulemaking would not have a significant economic impact on a substantial number of small entities).

For electric motors, for which DOE identified 13 manufacturers that are small businesses, the incremental burden associated with this rule is expected to be minimal. DOE already requires that manufacturers of electric motors test their motors according to a prescribed DOE test procedure and certify their efficiency to DOE prior to distributing them in commerce. Today's rule requires electric motors manufacturer to certify compliance to DOE annually. As discussed in section III.A.2, DOE recognizes that annual filing will increase the frequency with which manufacturers must file reports. However, DOE believes the increase in cost burden will be minimal because (1) annual filing does not require manufacturers to conduct additional testing, (2) reporting is done electronically, (3) DOE supplies manufacturers with certification report templates, and (4) electric motors-specific certification report requirements largely reflect the type of information already reported by electric motor manufacturers.

For small electric motors, for which DOE identified 9 manufacturers that are small businesses, the incremental burden associated with this rule is expected to be minimal. DOE currently requires small electric motor manufacturers to test their motors

according to a prescribed DOE test procedure, and this document does not propose changes to these requirements that would result in increased burden. This proposal does, however, include certification requirements for small electric motors. While the certification requirements may result in an incremental record-keeping burden, DOE believes that this burden will be negligible. To the extent possible, DOE proposed consistent certification for electric motors and small electric motors—and since electric motors and small electric motors are similar equipment types, DOE believes that these requirements will present an analogous burden. DOE reviewed its prior rulemakings that established certification requirements for electric motors manufacturers and found that the estimated burden was considered to be insignificant. No manufacturers disputed this finding. (See 61 FR 60440, at 60461 (November 27, 1996) and 64 FR 54114, at 54140 (October 5, 1999)) Therefore, DOE concludes that these same requirements will not have a significant impact on small business manufacturers of small electric motors.

Based on the criteria outlined above, DOE has determined that the amendments to the certification, compliance, and enforcement requirements for electric motors and small electric motors would not have a “significant economic impact on a substantial number of small entities,” and the preparation of a regulatory flexibility analysis is not warranted. DOE will transmit the certification and supporting statement of factual basis to the Chief Counsel for Advocacy of the Small Business Administration for review under 5 U.S.C. 605(b).

C. Review Under the Paperwork Reduction Act

Manufacturers of electric motors must certify to DOE that their equipment complies with any applicable energy conservation standards. This rulemaking adds small electric motor-specific certification provisions. In certifying compliance, manufacturers must test their equipment according to the DOE test procedures for electric motors and small electric motors, including any amendments adopted for those test procedures. The collection-of-information requirement for the certification and recordkeeping is subject to review and approval by OMB under the Paperwork Reduction Act (“PRA”). This requirement has previously been approved by OMB under OMB control number 1910-1400 and was recently renewed to include small electric motors. As indicated in the supporting statement, DOE's renewal included revisions and expansion of the information collected on the energy and water efficiency of consumer products and commercial equipment manufactured for distribution in commerce in the United States. This proposal is not expected to increase burdens for manufacturers of electric motors or change the burden for manufacturers of small electric motors that otherwise would have been imposed as a result of having to comply with the existing certification requirements. Public reporting burden for the certification was estimated to average 30 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of

information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB Control Number.

D. Review Under the National Environmental Policy Act of 1969

DOE has determined that this rule falls into a class of actions that are categorically excluded from review under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and DOE's implementing regulations at 10 CFR part 1021. Specifically, this rule amends an existing rule without changing its environmental effect and, therefore, is covered by the Categorical Exclusion in 10 CFR part 1021, subpart D, paragraph A5. 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 (Aug. 10, 1999), imposes certain requirements on Federal 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 the development of 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 the development of such regulations. 65 FR 13735. DOE has examined this rule and has determined that it would not have a substantial

direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. EPCA governs and prescribes Federal preemption of State regulations as to energy conservation for the products that are the subject of this final rule. States can petition DOE for exemption from such preemption to the extent, and based on criteria, set forth in EPCA. (42 U.S.C. 6297) Therefore, no further action is required by Executive Order 13132.

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,” imposes on Federal agencies the general duty to adhere to the following requirements: (1) eliminate drafting errors and ambiguity, (2) write regulations to minimize litigation, (3) provide a clear legal standard for affected conduct rather than a general standard, and (4) promote simplification and burden reduction. 61 FR 4729 (Feb. 7, 1996). Regarding the review required by section 3(a), section 3(b) of Executive Order 12988 specifically requires that Executive agencies make every reasonable effort to ensure that the regulation (1) clearly specifies the preemptive effect, if any, (2) clearly specifies any effect on existing Federal law or regulation, (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction, (4) specifies the retroactive effect, if any, (5) adequately defines key terms, and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of Executive Order 12988 requires Executive agencies to review regulations in light of applicable standards in section 3(a) and section 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 final rule 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”) requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. Public Law 104-4, sec. 201 (codified at 2 U.S.C. 1531). For a proposed regulatory action likely to result in a rule that may cause the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector of \$100 million or more in any one year (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish a written statement that estimates the resulting costs, benefits, and other effects on the national economy. (2 U.S.C. 1532(a), (b)) The UMRA also requires a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a proposed “significant intergovernmental mandate,” and requires an agency plan for giving notice and opportunity for timely input to potentially affected small governments before establishing any requirements that might significantly or uniquely affect small governments. On March 18, 1997, DOE published a statement of policy on its process for intergovernmental consultation under UMRA. 62 FR 12820. DOE's policy statement is also available at <http://energy.gov/gc/office-general-counsel>. This rule contains neither an intergovernmental mandate nor a mandate that may result in an expenditure of \$100 million or more in any year, so these requirements do not apply.

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. This rule would not have any impact on the autonomy or integrity of the family as an institution. Accordingly, DOE has concluded that it is not necessary 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 (44 U.S.C. 3516, note) provides for Federal agencies to review most disseminations of information to the public under information quality guidelines established by each agency pursuant to general guidelines issued by OMB. OMB’s guidelines were published at 67 FR 8452 (Feb. 22, 2002), and DOE’s guidelines were published at 67 FR 62446 (Oct. 7, 2002). DOE has reviewed this final 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 OIRA at 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 promulgates or is expected to lead to promulgation of a final rule, and that: (1) is a significant regulatory action under Executive Order 12866, or any successor order; and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy, or (3) is designated by the Administrator of OIRA as a significant energy action. For any proposed significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use should the proposal be implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use.

This regulatory action is not a significant regulatory action under Executive Order 12866. Moreover, it would not have a significant adverse effect on the supply, distribution, or use of energy, nor has it been designated as a significant energy action by the Administrator of OIRA. Therefore, it is not a significant energy action, and, accordingly, DOE has not prepared a Statement of Energy Effects.

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; 42 U.S.C. 7101), DOE must comply with section 32 of the Federal Energy Administration Act of 1974, as amended by the Federal Energy Administration

Authorization Act of 1977. (15 U.S.C. 788; “FEAA”) Section 32 essentially provides in relevant part that, where a proposed rule authorizes or requires use of commercial standards, the notice of proposed rulemaking must inform the public of the use and background of such standards. In addition, section 32(c) requires DOE to consult with the Attorney General and the Chairman of the FTC concerning the impact of the commercial or industry standards on competition.

In this rule, DOE references industry standards to be used as guidelines in the provisions for recognition of nationally recognized certification programs for electric motors and small electric motors and recognition of accreditation bodies. These industry standards are already listed as guidelines in the provisions for recognition of nationally recognized certification programs for electric motors and small electric motors and recognition of accreditation bodies in DOE’s existing regulations. In this rule, DOE continues to use the following industry standards as guidelines: ISO/IEC Guide 25-1990, “General requirements for the competence of calibration and testing laboratories;” ISO/IEC Guide 27-1983, “Guidelines for corrective action to be taken by a certification body in the event of misuse of its mark of conformity;” ISO/IEC Guide 28-2004, “Conformity assessment -- Guidance on a third-party certification system for products;” ISO/IEC Guide 58-1993, “Calibration and testing laboratory accreditation systems -- General requirements for operation and recognition;” ISO/IEC Guide 65-1996, “General requirements for bodies operating product certification systems;” NIST Handbook 150, “NVLAP Procedures and General Requirements,” 2006 edition; NIST Handbook 150-10, “Efficiency of Electric Motors,” 2007 edition.

V. Approval of the Office of the Secretary

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

List of Subjects

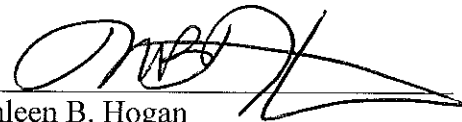
10 CFR Part 429

Administrative practice and procedure, Confidential business information, Energy conservation, Household appliances, Reporting and recordkeeping requirements.

10 CFR Part 431

Administrative practice and procedure, Confidential business information, Energy conservation test procedures, Incorporation by reference, and Reporting and recordkeeping requirements.

Issued in Washington, DC, on January 11, 2017.



Kathleen B. Hogan
Deputy Assistant Secretary for Energy Efficiency
Energy Efficiency and Renewable Energy

For the reasons set forth in the preamble, DOE amends part 429 and 431 of chapter II, subchapter D, of title 10 of the Code of Federal Regulations, to read as follows:

**PART 429— CERTIFICATION, COMPLIANCE, AND ENFORCEMENT
FOR CONSUMER PRODUCTS AND COMMERCIAL AND INDUSTRIAL
EQUIPMENT**

1. The authority citation for part 429 continues to read as follows:

Authority: 42 U.S.C. 6291-6317.

2. Revise § 429.1 to read as follows:

§ 429.1 Purpose and scope.

This part sets forth the procedures to be followed for certification and enforcement of compliance of covered products and equipment with the applicable conservation standards set forth in 10 CFR parts 430 and 431 of this subchapter.

3. Amend § 429.2 by revising paragraph (a) to read as follows:

§ 429.2 Definitions.

(a) The definitions found in 10 CFR parts 430 and 431 apply for purposes of this part.

* * * * *

4. Add § 429.3 to read as follows:

§429.3 Sources for information and guidance.

(a) General. The standards listed in this paragraph are referred to in §429.73 and §429.74 and are not incorporated by reference. These sources are given here for information and guidance.

(b) ISO/IEC. International Organization for Standardization (ISO), 1, ch. de la Voie-Creuse, CP 56, CH- 1211 Geneva 20, Switzerland/International Electrotechnical Commission, 3, rue de Varembé, P.O. Box 131, CH-1211 Geneva 20, Switzerland.

(1) International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC), (“ISO/IEC”) Guide 25, “General requirements for the competence of calibration and testing laboratories”, December 1, 1990.

(2) International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC), (“ISO/IEC”) Guide 27, “Guidelines for corrective

action to be taken by a certification body in the event of misuse of its mark of conformity”, March 1, 1983.

(3) International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC), (“ISO/IEC ”) Guide 28, “Conformity assessment -- Guidance on a third-party certification system for products,” October 1, 2004.

(4) International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC), (“ISO/IEC ”) Guide 58, “Calibration and testing laboratory accreditation systems -- General requirements for operation and recognition,” February 11, 1993.

(5) International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC), (“ISO/IEC ”) Guide 65, “General requirements for bodies operating product certification systems,” June 27, 1996.

(c) NVLAP. National Voluntary Laboratory Accreditation Program, National Institute of Standards and Technology, 100 Bureau Drive, M/S 2140, Gaithersburg, MD 20899-2140, 301-975-4016, or go to <http://www.nist.gov/nvlap/>. Also see <http://www.nist.gov/nvlap/nvlap-handbooks.cfm>.

(1) National Institute of Standards and Technology (NIST) Handbook 150, “NVLAP Procedures and General Requirements,” 2006 edition, February 2006.

(2) National Institute of Standards and Technology (NIST) Handbook 150-10, "Efficiency of Electric Motors," 2007 edition, February 2007.

5. Revise § 429.11 to read as follows:

§ 429.11 General sampling requirements for selecting units to be tested.

(a) When testing of covered products or covered equipment is required to comply with section 323(c) of the Act, or to comply with rules prescribed under sections 324, 325, 342, 344, 345 or 346 of the Act, a sample comprised of production units (or units representative of production units) of the basic model being tested must be selected at random and tested, and must meet the criteria found in §§ 429.14 through 429.64. Any represented values of measures of energy efficiency, water efficiency, energy consumption, or water consumption for all individual models represented by a given basic model must be the same; and

(b) The minimum number of units tested must be no less than two, unless otherwise specified. A different minimum number of units may be specified for certain products in §§ 429.14 through 429.64. If fewer than the number of units required for testing is manufactured, each unit must be tested.

6. Amend § 429.12 by:

- a. Revising paragraphs (b)(6), (b)(13), and (d); and
- b. Adding paragraphs (i)(6) and (i)(7).

The revisions and addition read as follows:

§ 429.12 General requirements applicable to certification reports.

* * * * *

(b) * * *

(6) For each brand, the basic model number and the manufacturer's individual model number(s) in that basic model with the following exceptions: For external power supplies that are certified based on design families, the design family model number and the individual manufacturer's model numbers covered by that design family must be submitted for each brand. For electric motors and small electric motors, the basic model number for each brand must be submitted. For distribution transformers, the basic model number or kVA grouping model number (depending on the certification method) for each brand must be submitted. For commercial HVAC, WH, and refrigeration equipment, an individual manufacturer model number may be identified as a "private model number" if it meets the requirements of § 429.7(b).

* * * * *

(13) Product specific information listed in §§429.14 through 429.64 of this chapter.

* * * * *

(d) Annual filing. All data required by paragraphs (a) through (c) of this section must be submitted to DOE annually, on or before the following dates:

Product category	Deadline for data submission
Fluorescent lamp ballasts, Medium base compact fluorescent lamps, Incandescent reflector lamps, General service fluorescent lamps, General service incandescent lamps, Intermediate base incandescent lamps, Candelabra base incandescent lamps, Residential ceiling fans, Residential ceiling fan light kits, Residential showerheads, Residential faucets, Residential water closets, and Residential urinals	Mar. 1
Small electric motors	April 1
Residential water heater, Residential furnaces, Residential boilers, Residential pool heaters, Commercial water heaters, Commercial hot water supply boilers, Commercial unfired hot water storage tanks, Commercial packaged boilers, Commercial warm air furnaces, Commercial unit heaters and Residential furnace fans	May 1
Residential dishwashers, Commercial prerinse spray valves, Illuminated exit signs, Traffic signal modules, Pedestrian modules, and Distribution transformers	June 1
Room air conditioners, Residential central air conditioners, Residential central heat pumps, Small duct high velocity system, Space constrained products, Commercial package air-conditioning and heating equipment, Packaged terminal air conditioners, Packaged terminal heat pumps, and Single package vertical units	July 1

Residential refrigerators, Residential refrigerators-freezers, Residential freezers, Commercial refrigerator, freezer, and refrigerator-freezer, Automatic commercial automatic ice makers, Refrigerated bottled or canned beverage vending machine, Walk-in coolers, Walk-in freezers, and Miscellaneous refrigeration products	Aug. 1
Torchieres, Residential dehumidifiers, Metal halide lamp fixtures, External power supplies, and Pumps	Sept. 1
Residential clothes washers, Residential clothes dryers, Residential direct heating equipment, Residential cooking products, and Commercial clothes washers	Oct. 1
Electric motors	Nov. 1

* * * * *

(i) * * *

(6) Electric motors, July 1, 2017.

(7) Small electric motors, **[INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].**

7. Add § 429.63 to read as follows:

§ 429.63 Electric motors.

(a) Compliance Certification. A manufacturer may not certify the compliance of an electric motor pursuant to 10 CFR 429.12 unless:

(1) Testing of the electric motor basic model was conducted using an accredited laboratory (see paragraph (d) of this section);

(2) A third-party certification organization that is nationally recognized in the United States under § 429.73 has certified the efficiency of the electric motor basic model through issuance of a certificate of conformity for the basic model; or

(3) The efficiency of the electric motor basic model was determined through the application of an AEDM pursuant to the requirements of §429.70 and a third-party certification program that is nationally recognized in the United States under §429.73 has certified the efficiency of the electric motor basic model through issuance of a certificate of conformity for the basic model.

(b) Determination of represented value. Manufacturers must determine the represented value of nominal full-load efficiency, which includes the certified rating and nameplate information, for each basic model of electric motor either by testing, in conjunction with the applicable sampling provisions, or by applying an AEDM as set forth in this section and in §429.70.

(1) Units to be tested. If the represented value for a given basic model is determined through testing, the requirements of §429.11 apply except that, for electric

motors, a sample of sufficient size is a minimum of five units. The sample must be randomly selected for testing. When fewer than five units of a basic model are produced over a 180-day period, then each unit shall be tested as part of the sample.

(i) Represented Nominal Full-Load Efficiency: Determine the represented value of nominal full-load efficiency, which corresponds to the certified rating and the value on the nameplate, by following the steps below:

(A) Calculate the mean full-load efficiency, \bar{x} , for the units in the sample by:

$$\bar{x} = \frac{1}{n} \sum_{i=1} x_i$$

Where x_i is the measured full-load efficiency of unit i and n is the number of units tested.

(B) Calculate RE_{avg} , the represented full-load efficiency based on the sample average, for the basic model as follows:

$$RE_{avg} = 100 \left(\frac{1.05\bar{x}}{100 + 0.05\bar{x}} \right)$$

Where \bar{x} is the mean full-load efficiency calculated in § 429.63(b)(1)(i)(A).

(C) Determine the minimum full-load efficiency, x_{min} , of the units in the sample by:

$$x_{min} = \min(x_i)$$

Where x_i is the measured full-load efficiency of unit i .

(D) Calculate RE_{min} , the represented full-load efficiency based on the minimum, for the basic model as follows:

$$RE_{min} = 100 \left(\frac{1.15x_{min}}{100 + 0.15x_{min}} \right)$$

Where x_{min} the minimum full-load efficiency of the units in the sample in § 429.63(b)(1)(i)(C).

(E) The represented nominal full-load efficiency must be determined by selecting an efficiency from the “Nominal Full-Load Efficiency” Table in Appendix B that is no greater than the lower of RE_{min} (as calculated in §429.63(b)(1)(i)(D)) and RE_{avg} (as calculated in §429.63(b)(1)(i)(B)).

(2) Alternative efficiency determination methods. In lieu of testing, a represented value of efficiency for a basic model of electric motor must be determined through the

application of an AEDM pursuant to the requirements of §429.70 and the provisions of this section, where:

(i) The represented value of nominal full-load efficiency of any basic model used to validate an AEDM must be calculated under paragraph (b)(1) of this section; and

(ii) The represented value of nominal full-load efficiency, which corresponds to the certified rating and the value on the nameplate, must be determined by selecting an efficiency from the “Nominal Full-Load Efficiency” Table in Appendix B that is no greater than the output of the AEDM for the basic model.

(c) Certification reports. (1) The requirements of § 429.12 apply to electric motors;

(2) Pursuant to § 429.12(b)(13), a certification report must include the following public, product-specific information for each basic model:

(i) The electric motor category described at 10 CFR 431.25 (e.g., fire pump electric motor),

(ii) The horsepower at which the basic model was tested,

(iii) The number of poles,

(iv) The enclosure construction (i.e., open or enclosed),

(v) The rated voltage(s),

(vi) The operating frequency(ies),

(vii) Whether the basic model is subject to specific test procedure provisions listed in section 4 of appendix B to subpart B of part 431 and the type of motor and the motor type of such basic model,

(viii) The represented nominal full-load efficiency,

(ix) The Compliance Certification number (CC number). The manufacturer may request a unique Compliance Certification number (CC number) for any brand name, trademark, or other label name under which the manufacturer or private labeler distributes electric motors covered by the certification report. The manufacturer or private labeler must identify all other names, if any, under which the manufacturer or private labeler distributes electric motors and to which the request does not apply (see 10 CFR 431.17),

(x) Whether an AEDM was used to determine the basic model's representative value,

(xi) Whether the represented values are based on testing conducted in an accredited laboratory or by a nationally recognized certification program, and

(xii) The name of the nationally recognized testing or certification program.

(d) Testing laboratories. (1) Testing pursuant to paragraph (a)(1) of this section must be conducted in an accredited laboratory for which the accreditation body was:

(i) The National Institute of Standards and Technology/National Voluntary Laboratory Accreditation Program (NIST/NVLAP); or

(ii) A laboratory accreditation body having a mutual recognition arrangement with NIST/NVLAP; or

(iii) An organization classified by the Department, pursuant to §429.74, as an accreditation body.

(2) 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 part 285. The National Voluntary Laboratory Accreditation Program, “Procedures and General Requirements,” NIST Handbook 150-10, February 2007, and Lab Bulletin LB-42-2009, Efficiency of Electric Motors Program, (referenced for guidance only, see §429.3) present the technical requirements of NVLAP 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 part 285 plus all general NIST/NVLAP procedures, criteria, and policies. 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, (301) 975-4016 (telephone), or (301) 926-2884 (fax).

8. Add §429.64 to read as follows:

§ 429.64 Small electric motors.

(a) Determination of represented value. Manufacturers must determine the represented value of average full-load efficiency, which includes the certified rating and nameplate information, for each basic model of small electric motor either by testing, in conjunction with the applicable sampling provisions, or by applying an AEDM as set forth in this section and in §429.70. A manufacturer may use a certification program that is nationally recognized in the United States pursuant to the requirements in § 429.73 to certify the average full-load efficiency of a basic model of small electric motor that has issued a certificate of conformity for the basic model.

(1) Units to be tested. If the represented value for a given basic model is determined through testing, the requirements of §429.11 apply except that, for small electric motors, a sample of sufficient size is a minimum of five units. The sample must

be randomly selected for testing. When fewer than five units of a basic model are produced over a 180-day period, then each unit shall be tested as part of the sample.

(i) The Represented Average Full-Load Efficiency: Determine the represented value of average full-load efficiency, which corresponds to the certified rating and the value on the nameplate, by following the steps below:

(A) Calculate the mean full-load efficiency, \bar{x} , for the units in the sample by:

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n x_i$$

Where x_i is the measured full-load efficiency of unit i and n is the number of units tested.

(B) Calculate the average represented full-load efficiency, RE_{avg} , for the basic model as follows:

$$RE_{avg} = 100 \left(\frac{1.05\bar{x}}{100 + 0.05\bar{x}} \right)$$

Where \bar{x} is the mean full-load efficiency calculated in §429.64(a)(1)(i)(A).

(C) The represented average full-load efficiency must be no greater RE_{avg} (as calculated in §429.64(a)(1)(i)(B)).

(2) Alternative efficiency determination methods. In lieu of testing, a represented value of average full-load efficiency for a basic model of small electric motor must be determined through the application of an AEDM pursuant to the requirements of §429.70 and the provisions of this section.

(i) The represented value of average full-load efficiency of any basic model used to validate an AEDM must be calculated under paragraph (a)(1) of this section; and

(ii) The represented value of average full-load efficiency, which corresponds to the certified rating and the value on the nameplate, must be no greater than the output of the AEDM for the basic model.

(b) Certification reports. (1) The requirements of §429.12 apply to small electric motors;

(2) Pursuant to §429.12(b)(13), a certification report must include the following public product-specific information for each basic model:

(i) The horsepower on which the rating for the basic model is based;

(ii) The number of poles;

(iii) The rated voltage(s),

(iv) The operating frequency(ies),

(v) The represented average full-load efficiency;

vi) Whether an AEDM was used to determine the basic model's representative value,

(vii) Whether the represented values are based on testing in a nationally recognized certification program; and

(viii) The name of the nationally recognized certification program.

9. Amend §429.70 by revising paragraph (a) and adding paragraphs (h) and (i) to read as follows:

§ 429.70 Alternative methods for determining energy efficiency or energy use.

(a) General. A manufacturer of covered products or covered equipment explicitly authorized to use an AEDM in §§429.14 through 429.64 may not distribute any basic model of such product or equipment in commerce unless the manufacturer has determined the energy efficiency of the basic model, either from testing the basic model in conjunction with DOE's certification sampling plans and statistics or from applying an alternative method for determining energy efficiency or energy use (i.e. AEDM) to the

basic model, in accordance with the requirements of this section. In instances where a manufacturer has tested a basic model to validate the AEDM, the represented value of energy efficiency of that basic model must be determined and certified according to results from actual testing in conjunction with 10 CFR part 429, subpart B certification sampling plans and statistics. In addition, a manufacturer may not knowingly use an AEDM to overrate the efficiency of a basic model.

* * * * *

(h) Alternative efficiency determination method (AEDM) for electric motors. (1)

Criteria an AEDM must satisfy. A manufacturer is not permitted to apply an AEDM to a basic model of electric motor to determine its efficiency pursuant to this section unless:

(i) The AEDM is derived from a mathematical model that estimates the energy efficiency characteristics and losses of the basic model as measured by the applicable DOE test procedure and accurately represents the mechanical and electrical characteristics of that basic model, and

(ii) The AEDM is based on engineering or statistical analysis, computer simulation or modeling, or other analytic evaluation of actual performance data.

(iii) The manufacturer has validated the AEDM, in accordance with paragraph (h)(2) of this section with basic models that meet the current Federal energy conservation standards.

(2) Validation of an AEDM. Before using an AEDM, the manufacturer must validate the AEDM's accuracy and reliability as follows:

(i) Apply the AEDM to at least five basic models that have been selected for testing in accordance with paragraph (h)(3) of this section, and calculate the predicted average full-load efficiency and predicted full-load losses for each of these basic models;

(ii) Test at least five units of each of these basic models in accordance with 10 CFR 431.16 of this chapter, and use the measured full-load losses of the tested units to determine the average full-load losses for each of these basic models in accordance with § 429.63 (Basic models used for validation must be certified pursuant to the provisions of § 429.63(a)(2).); and

(iii) The predicted average full-load losses for each such basic model calculated by applying the AEDM pursuant to paragraph (h)(2)(i) of this section must not be greater than ten percent below the measured average full-load losses (i.e., $0.90 \times \text{measured average full-load losses} \leq \text{predicted average full-load losses}$) determined from the testing of that basic model pursuant to paragraph (h)(2)(ii) of this section; and

(iv) A manufacturer may not use a basic model with a sample size of fewer than five units to validate an AEDM.

(3) Selection of basic models for testing. (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. In identifying these five basic models, any basic model of electric motor that does not comply with § 431.25 shall be excluded from consideration.

(B) No two basic models may have the same horsepower rating;

(C) No two basic models may have the same frame number series; and

(D) Each basic model must have the lowest average full-load efficiency among the basic models within the same equipment class.

(ii) In any instance where 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, select basic models randomly.

(4) Verification of an AEDM. (i) Each manufacturer that has used an AEDM under this section must have available for inspection by the Department of Energy records showing:

(A) The method or methods used to develop the AEDM;

(B) 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;

(C) Complete test data, product information, and related information that the manufacturer has generated or acquired pursuant to paragraphs (h)(2) and (h)(4)(ii) of this section; and

(D) The calculations used to determine the average full-load efficiency of each basic model to which the AEDM was applied.

(ii) If requested by the Department, the manufacturer must either:

(A) Conduct simulations to predict the performance of particular basic models of electric motors specified by the Department;

(B) Provide analyses of previous simulations conducted by the manufacturer;
and/or

(C) Conduct testing of basic models selected by the Department.

(i) Alternative efficiency determination method (AEDM) for small electric motors. (1) Criteria an AEDM must satisfy. A manufacturer is not permitted to apply an

AEDM to a basic model of small electric motor to determine its efficiency pursuant to this section unless:

(i) The AEDM is derived from a mathematical model that estimates the energy efficiency characteristics and losses of the basic model as measured by the applicable DOE test procedure and represents the mechanical and electrical characteristics of that basic model, and

(ii) The AEDM is based on engineering or statistical analysis, computer simulation or modeling, or other analytic evaluation of actual performance data.

(iii) The manufacturer has validated the AEDM, in accordance with paragraph (h)(2) of this section with basic models that meet the current Federal energy conservation standards.

(2) Validation of an AEDM. Before using an AEDM, the manufacturer must validate the AEDM's accuracy and reliability as follows:

(i) A manufacturer must first apply the AEDM to at least five basic models that have been selected for testing in accordance with paragraph (i)(3) of this section, and calculate the predicted full-load efficiency and the predicted average full-load losses for each of these basic models;

(ii) Test at least five units of each of these basic models in accordance with 10 CFR 431.444 of this chapter and use the measured full-load losses of the tested units to determine the measured average full-load losses in accordance with §429.64. (Basic models used for validation must be certified pursuant to the provisions of §429.64(a)(2)); and

(iii) The predicted full-load losses for each such basic model calculated by applying the AEDM pursuant to paragraph (i)(2)(i) of this section must not be greater than ten percent below the measured average full-load losses (i.e., $0.90 \times$ measured average full-load losses \leq predicted full-load losses) determined from the testing of that basic model pursuant to paragraph (i)(2)(ii) of this section; and

(iv) A manufacturer may not use a basic model with a sample size of fewer than five units to validate an AEDM.

(3) Selection of basic models for testing. (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. In identifying these five basic models, any small electric motor that does not comply with §431.446 shall be excluded from consideration.

(B) No two basic models may have the same horsepower rating;

(C) At least one basic model is selected from each of the frame number series for which the manufacturer is seeking to validate its AEDM; and

(D) Each basic model must have the lowest nominal full-load efficiency among the basic models within the same equipment class.

(ii) In any instance where 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, select basic models randomly.

(4) Verification of an AEDM. (i) Each manufacturer that has used an AEDM under this section must have available for inspection by the Department of Energy records showing:

(A) The method or methods used to develop the AEDM;

(B) 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;

(C) Complete test data, product information, and related information that the manufacturer has generated or acquired pursuant to paragraphs (i)(2) and (i)(4)(ii) of this section; and

(D) The calculations used to determine the average full-load efficiency of each basic model to which the AEDM was applied.

(ii) If requested by the Department, the manufacturer must either:

(A) Conduct simulations to predict the performance of particular basic models of small electric motors specified by the Department;

(B) Provide analyses of previous simulations conducted by the manufacturer;
and/or

(C) Conduct testing of basic models selected by the Department.

10. Add §429.73 to subpart B to read as follows:

§ 429.73 Department of Energy recognition of nationally recognized certification programs for electric motors and small electric motors.

(a) Petition. For a certification program to be classified by the Department of Energy as being nationally recognized in the United States for the purposes of section 345(c) of EPCA (“nationally recognized”), the organization operating the program must submit a petition to the Department requesting such classification, in accordance with

paragraph (c) of this section and §429.75. The petition must demonstrate that the program meets the criteria in paragraph (b) of this section.

(b) Evaluation criteria. For a certification program to be classified by the Department as nationally recognized, it must meet the following criteria:

(1) It must have satisfactory standards and procedures for conducting and administering a certification system, including periodic follow up activities to assure that basic models of electric motors continue to conform to the efficiency levels for which they were certified, and for granting a certificate of conformity.

(2) For certification of electric motors or small electric motors, it must be independent of electric motor and small electric motor manufacturers, importers, distributors, private labelers or vendors. It cannot be affiliated with, have financial ties with, be controlled by, or be under common control with any such entity.

(3) It must be qualified to operate a certification system in a highly competent manner.

(4) Electric motors. The certification program have expertise in the content and application of the test procedures and methodologies at 10 CFR 431.16 and 10 CFR 429.63.

(5) Small electric motors. The certification program have expertise in the content and application of the test procedures and methodologies at 10 CFR 431.444 and 10 CFR 429.64.

(c) Petition format. Each petition requesting classification as a nationally recognized certification program must contain a narrative statement as to why the program meets the criteria listed in paragraph (b) of this section, must be signed on behalf of the organization operating the program by an authorized representative, and must be accompanied by documentation that supports the narrative statement. The following provides additional guidance as to the specific criteria:

(1) Standards and procedures. A copy of the standards and procedures for operating a certification system and for granting a certificate of conformity should accompany the petition.

(2) Independent status. For electric motors or small electric motors, the petitioning organization should identify and describe any relationship, direct or indirect, that it or the certification program has with any electric motor or small electric motor manufacturer, importer, distributor, private labeler, vendor, trade association or other such entity, as well as any other relationship it believes might appear to create a conflict of interest for the certification program in operating a certification system for compliance by electric motors with energy efficiency standards. It should explain why it believes such relationship would not compromise its independence in operating a certification program.

(3) Qualifications to operate a certification system. Experience in operating a certification system should be described and substantiated by supporting documents within the petition. Of particular relevance would be documentary evidence that establishes experience in the application of guidelines contained in the ISO/IEC Guide 65, “General requirements for bodies operating product certification systems” (referenced for guidance only, see § 429.3), ISO/IEC Guide 27, “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” (referenced for guidance only, see § 429.3), and ISO/IEC Guide 28, “General rules for a model third-party certification system for products” (referenced for guidance only, see § 429.3), as well as experience in overseeing compliance with the guidelines contained in the ISO/IEC Guide 25, “General requirements for the competence of calibration and testing laboratories” (referenced for guidance only, see § 429.3).

(4) Expertise in test procedures. (i) *General.* This part of the petition should include items such as, but not limited to, a description of prior projects and qualifications of staff members. Of particular relevance would be documentary evidence that establishes experience in applying guidelines contained in the ISO/IEC Guide 25, “General Requirements for the Competence of Calibration and Testing Laboratories” (referenced for guidance only, see § 429.3), and with energy efficiency testing of the equipment to be certified.

(ii) *Electric motors*. The petition should set forth the program's experience with the test procedures and methodologies detailed in 10 CFR 431.16 of this chapter and 10 CFR 429.63.

(iii) Small electric motors. The petition should set forth the program's experience with the test procedures and methodologies detailed in 10 CFR 431.444 and 10 CFR 429.64.

(d) Disposition. The Department will evaluate the petition in accordance with § 429.75, and will determine whether the applicant meets the criteria in paragraph (b) of this section for classification as a nationally recognized certification program.

11. Add § 429.74 to subpart B to read as follows:

§ 429.74 Department of Energy recognition of accreditation bodies for electric motors.

(a) Petition. To be classified by the Department of Energy as an accreditation body, an organization must submit a petition to the Department requesting such classification, in accordance with paragraph (c) of this section and §429.75. The petition must demonstrate that the organization meets the criteria in paragraph (b) of this section.

(b) Evaluation criteria. To be classified as an accreditation body by the Department, the organization must meet the following criteria:

(1) It must have satisfactory standards and procedures for conducting and administering an accreditation system and for granting accreditation. This must include provisions for periodic audits to verify that the laboratories receiving its accreditation continue to conform to the criteria by which they were initially accredited, and for withdrawal of accreditation where such conformance does not occur, including failure to provide accurate test results.

(2) It must be independent of electric motor manufacturers, importers, distributors, private labelers or vendors. It cannot be affiliated with, have financial ties with, be controlled by, or be under common control with any such entity.

(3) It must be qualified to perform the accrediting function in a highly competent manner.

(4) It must be an expert in the content and application of the test procedures and methodologies at 10 CFR 431.16 and 10 CFR 429.63.

(c) Petition format. Each petition requesting classification as an accreditation body must contain a narrative statement as to why the program meets the criteria set forth in paragraph (b) of this section, must be signed on behalf of the organization operating

the program by an authorized representative, and must be accompanied by documentation that supports the narrative statement. The following provides additional guidance:

(1) Standards and procedures. A copy of the organization's standards and procedures for operating an accreditation system and for granting accreditation should accompany the petition.

(2) Independent status. The petitioning organization should identify and describe any relationship, direct or indirect, that it has with an electric motor manufacturer, importer, distributor, private labeler, vendor, trade association or other such entity, as well as any other relationship it believes might appear to create a conflict of interest for it in performing as an accreditation body for electric motor testing laboratories. It should explain why it believes such relationship(s) would not compromise its independence as an accreditation body.

(3) Qualifications to operate a testing program. 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” (referenced for guidance only, see §429.3), as well as experience in overseeing compliance with the guidelines contained in the ISO/IEC Guide 25, “General Requirements for the Competence of Calibration and Testing Laboratories” (referenced for guidance only, see §429.3).

(4) Expertise in test procedures. The petition should set forth the organization's experience with the test procedures and methodologies test procedures and methodologies at 10 CFR 431.16 and 10 CFR 429.63. This part of the petition should include items such as, but not limited to, a description of prior projects and qualifications of staff members. Of particular relevance would be documentary evidence that establishes experience in applying the guidelines contained in the ISO/IEC Guide 25, “General Requirements for the Competence of Calibration and Testing Laboratories,” (referenced for guidance only, see §429.3) to energy efficiency testing for electric motors.

(d) Disposition. The Department will evaluate the petition in accordance with § 429.75, and will determine whether the applicant meets the criteria in paragraph (b) of this section for classification as an accrediting body.

12. Add § 429.75 to read as follows:

§ 429.75 Procedures for recognition and withdrawal of recognition of accreditation bodies or certification programs.

(a) Filing of petition. Any petition submitted to the Department pursuant to § 429.73(a) or § 429.74(a), shall be entitled “Petition for Recognition” (“Petition”) and must be submitted to the Assistant Secretary for Energy Efficiency and Renewable

Energy, U.S. Department of Energy, Forrestal Building, Attn: 5B, 1000 Independence Avenue, SW., Washington, DC 20585-0121, or via email (preferred submittal method) to AS_Motor_Petitions@ee.doe.gov. In accordance with the provisions set forth in 10 CFR 1004.11, any request for confidential treatment of any information contained in such a Petition or in supporting documentation must be accompanied by a copy of the Petition or supporting documentation from which the information claimed to be confidential has been deleted.

(b) Public notice and solicitation of comments. DOE shall publish in the Federal Register the Petition from which confidential information, as determined by DOE, has been deleted in accordance with 10 CFR 1004.11 and shall solicit comments, data and information on whether the Petition should be granted. The Department shall also make available for inspection and copying the Petition's supporting documentation from which confidential information, as determined by DOE, has been deleted in accordance with 10 CFR 1004.11. Any person submitting written comments to DOE with respect to a Petition shall also send a copy of such comments to the petitioner.

(c) Responsive statement by the petitioner. A petitioner may, within 10 working days of receipt of a copy of any comments submitted in accordance with paragraph (b) of this section, respond to such comments in a written statement submitted to the Assistant Secretary for Energy Efficiency and Renewable Energy. A petitioner may address more than one set of comments in a single responsive statement.

(d) Public announcement of interim determination and solicitation of comments.

The Assistant Secretary for Energy Efficiency and Renewable Energy shall issue an interim determination on the Petition as soon as is practicable following receipt and review of the Petition and other applicable documents, including, but not limited to, comments and responses to comments. The petitioner shall be notified in writing of the interim determination. DOE shall also publish in the Federal Register the interim determination and shall solicit comments, data, and information with respect to that interim determination. Written comments and responsive statements may be submitted as provided in paragraphs (b) and (c) of this section.

(e) Public announcement of final determination. The Assistant Secretary for Energy Efficiency and Renewable Energy shall as soon as practicable, following receipt and review of comments and responsive statements on the interim determination, publish in the Federal Register a notice of final determination on the Petition.

(f) Additional information. The Department may, at any time during the recognition process, request additional relevant information or conduct an investigation concerning the Petition. The Department's determination on a Petition may be based solely on the Petition and supporting documents, or may also be based on such additional information as the Department deems appropriate.

(g) Withdrawal of recognition—(1) *Withdrawal by the Department.* If DOE believes that an accreditation body or certification program that has been recognized under § 429.73 or 429.74, respectively, is failing to meet the criteria of paragraph (b) of

the section under which it is recognized, the Department will so inform such entity and request that it take appropriate corrective action. The Department will give the entity an opportunity to respond. In no case shall the time allowed for corrective action exceed 180 days from the date of the notice (inclusive of the 30 days allowed for disputing the bases for DOE's notification of withdrawal). If the entity wishes to dispute any bases identified in the notification, the entity must respond to DOE within 30 days of receipt of the notification. If after receiving such response, or no response, the Department believes satisfactory correction has not been made, the Department will withdraw its recognition from that entity.

(2) Voluntary withdrawal. An accreditation body or certification program may withdraw itself from recognition by the Department by advising the Department in writing of such withdrawal. It must also advise those that use it (for an accreditation body, the testing laboratories, and for a certification organization, the manufacturers) of such withdrawal.

(3) Notice of withdrawal of recognition. The Department will publish in the Federal Register a notice of any withdrawal of recognition that occurs pursuant to this paragraph.

13. Add § 429.76 to read as follows:

§ 429.76 Labeling requirements.

(a) Electric motor nameplate—(1) Required information. The permanent nameplate of an electric motor for which standards are prescribed in §431.25 must be marked clearly with the following information:

(i) The motor's nominal full-load efficiency (as of the date of manufacture) as determined pursuant to this subpart and as certified pursuant to § 429.12; and

(ii) A Compliance Certification number (“CC number”) supplied by DOE to the manufacturer or private labeler, pursuant to §431.36, and applicable to that motor. Such CC number must be on the nameplate of a motor beginning 90 days after either:

(A) The manufacturer or private labeler has received the CC number upon submitting a certification report covering that motor, or

(B) The expiration of 21 days from DOE's receipt of a certification report covering that motor, if the manufacturer or private labeler has not been advised by DOE that the certification report is not acceptable pursuant to the requirements at §429.12.

(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 any other performance data on the motor's permanent nameplate. The nominal full-load efficiency shall be identified either by the term “Nominal Efficiency,”

“Nom. Eff.,” “NEMA Nominal Efficiency,” or “NEMA Nom. Eff.,” for example
“NEMA Nom. Eff. __.” The CC number issued pursuant to §431.36 shall be in the form
“CC __.”

(3) Optional display. The permanent nameplate of an electric motor, a separate plate, or decalcomania, may be marked with the encircled lower case letters “ee”, for example,



or with some comparable designation or logo, if the motor meets the applicable standard prescribed in §431.25, as determined pursuant to this subpart, and is covered by a Compliance Certification that satisfies §429.12.

(b) Disclosure of efficiency information in marketing materials. (1) The same information that must appear on an electric motor's permanent nameplate pursuant to paragraph (a)(1) of this section, shall be prominently displayed:

(i) On each page of a catalog that lists the motor; and

(ii) In other materials used to market the motor.

(2) The “ee” logo, or other similar logo or designations, may also be used in catalogs and other materials to the same extent they may be used on labels under paragraph (a)(3) of this section.

(c) Preemption of State regulations. The provisions of this paragraph supersede any State regulation to the extent required by Section 327 of the Act (42 U.S.C. 6297), as applied to electric motors via Section 345 of the Act (42 U.S.C. 6316). Pursuant to the Act, all State regulations that require the disclosure for any electric motor of information with respect to energy consumption, other than the information required to be disclosed in accordance with this paragraph, are superseded.

14. Amend § 429.102 by revising the section heading and adding paragraphs (a)(11) through (13) to read as follows:

§ 429.102 Prohibited acts.

(a) * * *

(11) Distribution in commerce by a manufacturer or private labeler of any covered equipment that is not labeled in accordance with this part;

(12) Removal from any covered equipment or rendering illegible, by a manufacturer, distributor, retailer, or private labeler, any label required to be provided under this part; or

(13) Advertisement of an electric motor, by a manufacturer, distributor, retailer, or private labeler, in a catalog from which the equipment may be purchased, without including in the catalog all information as required by § 429.76(b), provided, however, that this shall not apply to an advertisement of an electric motor in a catalog if distribution of the catalog began before the effective date of the labeling rule applicable to that motor.

15. Add appendix B to subpart B of part 429 to read as follows:

Appendix B to Subpart B of Part 429 – Nominal Full-Load Efficiency Table for Electric Motors

99.0	98.4	97.1	95.0	91.7	86.5	78.5
98.9	98.2	96.8	94.5	91.0	85.5	77.0
98.8	98.0	96.5	94.1	90.2	84.0	75.5
98.7	97.8	96.2	93.6	89.5	82.5	74.0
98.6	97.6	95.8	93.0	88.5	81.5	72.0
98.5	97.4	95.4	92.4	87.5	80.0	70.0

16. Amend § 429.110 by revising paragraphs (c)(1)(i) and (ii), (c)(3), and (e)(7) through (9), and adding a new paragraph (e)(10) and paragraph (f) to read as follows:

§ 429.110 Enforcement testing.

* * * * *

(c) * * *

(1) * * *

(i) Manufacturer's warehouse, distributor, or other facility affiliated with the manufacturer. DOE will select a batch sample at random in accordance with the provisions in paragraph (e) of this section and the conditions specified in the test notice. DOE will randomly select an initial test sample of units from the batch sample for testing in accordance with appendices A through E of this subpart. DOE will make a determination whether an alternative sample size will be used in accordance with the provisions in paragraph (e) of this section.

(ii) Retailer or other facility not affiliated with the manufacturer. DOE will select an initial test sample of units at random that satisfies the minimum units necessary for testing in accordance with the provisions in appendices A through E of this subpart and the conditions specified in the test notice. Depending on the results of the testing, DOE may select additional units for testing from a retailer in accordance with appendices A through E of this subpart. If the full sample is not available from a retailer, DOE will make a determination whether an alternative sample size will be used in accordance with the provisions in paragraph (e) of this section.

* * * * *

(3) The resulting test data shall constitute official test data for the basic model.

Such test data will be used by DOE to make a determination of compliance or noncompliance if a sufficient number of tests have been conducted to satisfy the requirements of paragraph (e) of this section and appendices A through E of this subpart.

* * * * *

(e) * * *

(7) For electric motors and small electric motors, DOE will use an initial sample size of at least five units and follow the sampling plans in appendix E of this subpart (Sampling Plan for Enforcement Testing of Electric Motors and Small Electric Motors). If fewer than five units of a basic model are available for testing when the manufacturer receives the test notice, then:

(i) DOE will test the available unit(s); or

(ii) If one or more other units of the basic model are expected to become available within 30 calendar days, the Department may instead, at its discretion, test either:

(A) The available unit(s) and one or more of the other units that subsequently become available (for a total sample of at least five); or

(B) At least five of the other units that subsequently become available.

(8) Notwithstanding paragraphs (e)(1) through (e)(7) of this section, if testing of the available or subsequently available units of a basic model would be impractical, as for example when a basic model has unusual testing requirements or has limited production, DOE may in its discretion decide to base the determination of compliance on the testing of fewer than the otherwise required number of units.

(9) When DOE makes a determination in accordance with paragraph (e)(8) of this section to test less than the number of units specified in paragraphs (e)(1) through (8) of this section, DOE will base the compliance determination on the results of such testing in accordance with appendix B of this subpart (Sampling Plan for Enforcement Testing of Covered Equipment and Certain Low-Volume Covered Products) using a sample size (n_1) equal to the number of units tested.

(10) For the purposes of this section, available units are those that are available for distribution in commerce within the United States.

(f) Enforcement of electric and small electric motor representations.

(1) Selection of units. Unless testing is conducted pursuant to paragraph (a), DOE will generally select and test a unit from a retailer or other facility not affiliated with the manufacturer but may request one or more units directly from the manufacturer. If the manufacturer provides a unit, the provisions of paragraph (d) apply.

(2) Testing. Testing will be conducted at a lab accredited to the International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC), “General requirements for the competence of testing and calibration laboratories,” ISO/IEC 17025:2005(E) (incorporated by reference; see §429.4). If testing cannot be completed at an independent lab, DOE, at its discretion, may allow testing at a manufacturer's lab, so long as the lab is accredited to ISO/IEC 17025:2005(E) and DOE representatives witness the testing.

(3) Noncompliance. DOE will evaluate any represented value of nominal full-load efficiency based on testing of at least one unit. DOE will find a represented value to be noncompliant if either:

(i) The represented nominal full-load efficiency for electric motors or represented average full-load efficiency for small electric motors (RE) fails to meet the following condition:

$$RE \leq 100 \left(\frac{1.05\bar{x}}{100 + 0.05\bar{x}} \right)$$

Where \bar{x} is either the measured full-load efficiency of the sample (where a single unit was tested) or the mean full-load efficiency of the sample (i.e., the summation of the tested value for each unit divided by the total number of units in the sample), or

(ii) The lowest measured full-load efficiency in the sample, x_{\min} , fails to meet the condition:

$$x_{min} \geq \frac{100}{1 + 1.15 \left(\frac{100}{RE} - 1 \right)}$$

17. Add appendix E to subpart C of part 429 to read as follows:

Appendix E to Subpart C of Part 429 – Sampling Plan for Enforcement

Testing of Electric Motors and Small Electric Motors

Step 1. The first sample size (n_1) must be five or more units.

Step 2. Compute the mean (\bar{X}_1) of the measured energy performance of the n_1 units in the first sample as follows:

$$\bar{X}_1 = \frac{1}{n_1} \sum_{i=1}^{n_1} X_i$$

Where X_i is the measured full-load efficiency of unit i .

Step 3. Compute the sample standard deviation (S_1) of the measured energy efficiency of the n_1 units in the first sample as follows:

$$S_1 = \sqrt{\frac{\sum_{i=1}^{n_1} (X_i - \bar{X}_1)^2}{n_1 - 1}}$$

Step 4. Compute the standard error ($SE(\bar{X}_1)$) of the mean full-load efficiency of the first sample as follows:

$$SE(\bar{X}_1) = \frac{S_1}{\sqrt{n_1}}$$

Step 5. Compute the lower control limit (LCL_1) for the mean of the first sample using ECS as the desired mean as follows:

$$LCL_1 = ECS - tSE(\bar{X}_1)$$

Where ECS is the applicable energy conservation standard, and t is the 2.5th percentile of a t-distribution for a sample size of n_1 , which yields a 97.5 percent confidence level for a one-tailed t-test.

Step 6. Compare the mean of the first sample (\bar{X}_1) with the lower control limit (LCL_1) to determine one of the following:

(i) If the mean of the first sample is below the lower control limit, then the basic model is in non-compliance and testing is at an end.

(ii) If the mean is equal to or greater than the lower control limit, no final determination of compliance or non-compliance can be made; proceed to Step 7.

Step 7. Determine the recommended sample size (n) as follows:

$$n = \left[\frac{tS_1(120 - 0.2ECS)}{ECS(20 - 0.2ECS)} \right]^2$$

Where S_1 , ECS and t have the values used in Steps 3 and 5, respectively. The factor

$$\frac{120 - 0.2ECS}{ECS(20 - 0.2ECS)}$$

is based on a 20 percent tolerance in the total power loss at full-load and fixed output power.

Given the value of n , determine one of the following:

(i) If the value of n is less than or equal to n_1 and if the mean energy efficiency of the first sample (\bar{X}_1) is equal to or greater than the lower control limit (LCL_1), the basic model is compliant and testing is at an end.

(ii) If the value of n is greater than n_1 , the basic model is in non-compliance. The size of a second sample n_2 is determined to be the smallest integer equal to or greater than the difference $n - n_1$. If the value of n_2 so calculated is greater than $21 - n_1$, set n_2 equal to $21 - n_1$.

Step 8. Compute the combined (\bar{X}_2) mean of the measured energy performance of the n_1 and n_2 units of the combined first and second samples as follows:

$$\bar{X}_2 = \frac{1}{n_1 + n_2} \sum_{i=1}^{n_1+n_2} X_i$$

Step 9. Compute the standard error ($SE(\bar{X}_2)$) of the mean full-load efficiency of the n_1 and n_2 units in the combined first and second samples as follows:

$$SE(\bar{X}_2) = \frac{S_1}{\sqrt{n_1 + n_2}}$$

(Note that S_1 is the value obtained above in Step 3.)

Step 10. Set the lower control limit (LCL_2) to,

$$LCL_2 = ECS - tSE(\bar{X}_2)$$

Where t has the value obtained in Step 5, and compare the combined sample mean (\bar{X}_2) to the lower control limit (LCL_2) to find one of the following:

(i) If the mean of the combined sample (\bar{X}_2) is less than the lower control limit (LCL_2), the basic model is in non-compliance and testing is at an end.

(ii) If the mean of the combined sample (\bar{X}_2) is equal to or greater than the lower control limit (LCL_2), the basic model is not found to be in non-compliance and testing is at an end.

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

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

Authority: 42 U.S.C. 6291-6317; 28 U.S.C. 2461 note.

19. Revise § 431.11 to read as follows:

§ 431.11 Purpose and scope.

This subpart contains energy conservation requirements for electric motors, including test procedures, energy conservation standards, and related requirements prescribed or authorized by EPCA. This subpart does not cover “small electric motors,” which are addressed in subpart X of this part.

20. Amend § 431.12 by:

- a. Revising the definition of “Basic model;” and
- b. Adding the definition of “Equipment class.”

The revision and addition reads as follows:

§ 431.12 Definitions.

* * * * *

Basic model means all units of electric motors manufactured by a single manufacturer, that are within the same equipment class, have electrical characteristics that are essentially identical, and do not have any differing physical or functional characteristics that affect energy consumption or efficiency.

* * * * *

Equipment class means one of the combinations 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.

* * * * *

§§ 431.14, 431.17, 431.18, 431.19, 431.20, 431.21, 431.31 and 431.32

[Removed]

21. Remove §§ 431.14, 431.17, 431.18, 431.19, 431.20, 431.21, 431.31 and 431.32.

22. Revise § 431.35 to read as follows:

§ 431.35 Applicability of certification requirements.

Sections 429.12 and 429.63 set forth the procedures for manufacturers to certify that electric motors comply with the applicable energy efficiency standards set forth in this subpart.

23. Section 431.36 is revised to read as follows:

§ 431.36 Compliance Certification Numbers.

(a) In any certification report filed pursuant to 10 CFR 429.12, an electric motor manufacturer may request that DOE provide it with a unique Compliance Certification number (“CC number”) for any brand name, trademark or other label name under which the manufacturer or a private labeler distributes electric motors covered by the certification. Such a certification report must also identify all other names, if any, under which the manufacturer distributes electric motors and to which the request does not apply.

(b) Upon receipt of a certification report requesting a CC number, DOE will determine whether the document contains all of the information required, and may, in its discretion, determine whether all or part of the information provided in the document is accurate. DOE will advise the manufacturer promptly if DOE declines to issue a CC number and the basis for its determination. If the certification report is acceptable:

(1) DOE will generally issue a single unique CC number, "CC____," to a manufacturer, and such CC number shall be applicable to all electric motors distributed by the manufacturer.

(2) DOE will provide a unique CC number for each brand name, trademark or other label name if a manufacturer requests such a number, except as follows:

(i) DOE will not provide a CC number for any brand name, trademark or other label name

(A) For which DOE has previously provided a CC number, or

(B) That duplicates or overlaps with other names under which the manufacturer sells electric motors.

(ii) Once DOE has provided a CC number for a particular name, that shall be the only CC number applicable to all electric motors distributed by the manufacturer under that name.

(c) Private labelers. DOE will accept a certification report meeting the requirements of 429.12 filed by or on behalf of an electric motor private labeler as part of a request by a private labeler to obtain a CC number. Paragraphs (a) and (b) shall apply to such private labeler as though the private labeler were the electric motor manufacturer.

Appendix C to Subpart B of Part 431 - [Removed]

24. Remove appendix C to subpart B of part 431.

Subpart U – [Removed and Reserved]

25. Remove and reserve subpart U, consisting of §§ 431.381 through 431.387 and appendix A to subpart U of part 431.

26. Amend §431.442 by:

a. Revising the definition of “Basic model;” and

b. Adding a definition of “Equipment class.”

The revision and addition read as follows:

§ 431.442 Definitions.

* * * * *

Basic model means all units of small electric motors manufactured by a single manufacturer, that are within a single equipment class, have electrical characteristics that are essentially identical, and do not have any differing physical or functional characteristics which affect energy consumption or efficiency.

* * * * *

Equipment class means one of the combinations of a small electric motor’s design (i.e., capacitor-start capacitor-run, capacitor-start induction-run, or polyphase), horsepower (or standard kilowatt equivalent), and number of poles, with respect to which § 431.446 prescribes average full-load efficiency standards.

* * * * *

§ 431.445 [Removed]

27. Remove § 431.445.

§§ 431.447 and 431.448 [Removed]

28. Remove §§ 431.447 and 431.448.