number series for which the manufacturer is seeking compliance; and

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

(ii) 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, basic models shall be selected randomly.

(2) Selection of units for testing within a basic model. For each basic model selected for testing, a sample of units shall be selected at random and tested. The sample shall be comprised of production units of the basic model, or units that are representative of such production units. The sample size shall be no fewer than five units, except when fewer than five units of a basic model would be produced over a reasonable period of time (approximately 180 days). In such cases, each unit produced shall be tested.

(3) Applying results of testing. When applying the test results to determine whether a motor complies with the required average efficiency level:

The average full-load efficiency of the sample, \( \bar{X} \) which is defined 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, shall satisfy the condition:

\[
\bar{X} \geq \frac{100}{1 + 1.05 \left( \frac{100}{RE} - 1 \right)}
\]

where \( RE \) is the required average full-load efficiency.


\(^1\)Components of similar design may be substituted without requiring additional testing if the represented measures of energy consumption continue to satisfy the applicable sampling provision.
the lower of the two horsepower ratings; or
(3) A kilowatt rating shall be directly converted from kilowatts to horsepower using the formula 1 kilowatt = (1/0.746) hp, without calculating beyond three significant decimal places, and the resulting horsepower shall be rounded in accordance with paragraphs (b)(1) or (b)(2) of this section, whichever applies.

[75 FR 10947, Mar. 9, 2010; 75 FR 17036, Apr. 5, 2010]

§ 431.447 Department of Energy recognition of nationally recognized certification programs.

(a) Petition. For a certification program to be classified by the Department of Energy as being nationally recognized in the United States (“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 §431.448. 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 small electric motors continue to conform to the efficiency levels for which they were certified, and for granting a certificate of conformity.

(2) It must be independent of 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) It must be expert in the content and application of the test procedures and methodologies in IEEE Std 112-2004 Test Methods A and B, IEEE Std 114-2010, CSA C990-10, and CSA C747 (incorporated by reference, see §431.443) or similar procedures and methodologies for determining the energy efficiency of small electric motors. It must have satisfactory criteria and procedures for the selection and sampling of electric motors tested for energy efficiency.

(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. The petitioning organization should identify and describe any relationship, direct or indirect, that it or the certification program 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 the certification program in operating a certification system for determining the compliance of small electric motors with the applicable 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 discussed and substantiated by supporting documents. Of particular relevance would be documentary evidence that establishes experience in the application of guidelines contained in the ISO/IEC Guide 65, General requirements for bodies operating product certification systems, 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

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