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Energy Conservation Program: Alternative Efficiency Determination Methods, Basic Model Definition, and Compliance for Commercial HVAC, Refrigeration, and Water Heating Equipment


ACTION: Final Rule.

SUMMARY: The U.S. Department of Energy (DOE) is revising its regulations governing DOE verification testing of industrial equipment covered by EPCA rated with alternative efficiency determination methods (AEDMs). These regulations arose from a negotiated rulemaking effort on issues regarding the certification of commercial heating, ventilating, air-conditioning (HVAC), water heating (WH), and refrigeration equipment.

DATES: Effective Date: [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].
ADDRESSES: This rulemaking can be identified by docket number EERE-2011-BT-TP-0024 and/or RIN 1904-AC46.

Docket: The docket is available for review at www.regulations.gov, including Federal Register notices, public meeting attendee lists and transcripts, comments, and other supporting documents/materials. 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.

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I. Authority and Background

Authority


Under EPCA, this program consists essentially of four parts: (1) testing; (2) labeling; (3) Federal energy conservation standards; and (4) certification and enforcement procedures. The Federal Trade Commission (FTC) is primarily responsible for the labeling of consumer products and DOE implements the remainder of the program. The testing requirements consist of test procedures that manufacturers of covered products and equipment must use (1) as the basis for certifying to DOE that their products comply with the applicable energy conservation standards

\(^1\) For editorial reasons, Parts B (consumer products) and C (commercial equipment) of Title III of EPCA were redesignated as parts A and A-1, respectively, in the United States Code.
adopted under EPCA, and (2) for making representations about the efficiency of those products and equipment. Similarly, DOE must use these test requirements to determine whether the products comply with any relevant standards promulgated under EPCA. For certain consumer products and industrial equipment, DOE’s existing testing regulations allow the use of an alternative efficiency determination method (AEDM) or an alternative rating method (ARM), in lieu of actual testing, to simulate the energy consumption or efficiency of certain basic models of covered products under DOE’s test procedure conditions.

In addition, EPCA (through 42 U.S.C. 6299-6305 and 6316) authorizes DOE to enforce compliance with the energy and water conservation standards (all non-product specific references herein referring to energy use and consumption include water use and consumption; all references to energy efficiency include water efficiency) established for certain consumer products and industrial equipment. (42 U.S.C. 6299-6305 (consumer products), 6316 (industrial equipment)) DOE has promulgated enforcement regulations that include specific certification and compliance requirements. See 10 CFR part 429; 10 CFR part 431, subparts B, U, and V.

**Background**

On February 26, 2013, members of the Appliance Standards and Rulemaking Federal Advisory Committee (ASRAC) unanimously decided to form a working group to engage in a negotiated rulemaking effort on the certification of the compliance of commercial HVAC, WH, and refrigeration equipment. A notice of intent to form the Commercial Certification Working Group (“the Working Group”) was published in the Federal Register on March 12, 2013, to which DOE received 35 nominations. 78 FR 15653. On April 16, 2013, DOE published a notice
of open meeting that announced the first meeting and listed the 22 nominated individuals (and their affiliations) who were selected to serve as members of the Working Group, in addition to two members from ASRAC, and one DOE representative. 78 FR 22431. The members of the Working Group were selected to ensure a broad and balanced array of stakeholder interests and expertise, and included efficiency advocates, manufacturers, a utility representative, and third-party laboratory representatives.

During the Working Group’s first meeting, Working Group members voted to expand the scope of the negotiated rulemaking efforts to include developing methods of estimating equipment performance based on AEDM simulations. AEDMs are computer modeling or mathematical tools that predict the performance of non-tested basic models. They are derived from mathematical and engineering principles that govern the energy efficiency and energy consumption characteristics of a type of covered equipment. AEDMs, when properly developed, can provide a relatively straight-forward and reasonably accurate means to predict the energy usage or efficiency characteristics of a basic model of a given covered product or equipment and reduce the burden and cost associated with testing. Where authorized by regulation, AEDMs enable manufacturers to rate and certify the compliance of their basic models by using the projected energy use or energy efficiency results derived from these simulation models in lieu of testing.

The Working Group discussed the particular elements that the AEDM simulations should address for each equipment type and other related considerations, including validation requirements for AEDMs, DOE verification of models rated with an AEDM, and the
consequences for misuse of the AEDM construct. As required, the Working Group submitted an interim report to ASRAC on June 26, 2013, summarizing the group’s recommendations regarding AEDMs for commercial HVAC, WH, and refrigeration equipment. The interim report to ASRAC can be found at http://www.regulations.gov/#!documentDetail;D=EERE-2013-BT-NOC-0023-0046. ASRAC subsequently voted unanimously to approve the recommendations in the interim report for AEDMs.

On October 22, 2013, DOE published in the Federal Register a Supplemental Notice of Proposed Rulemaking (“the October 2013 AEDM SNOPR”) regarding alternative efficiency determination methods, basic model definitions, and certification compliance dates for commercial HVAC, refrigeration, and WH equipment. 78 FR 62472. The October 2013 AEDM SNOPR also proposed a process for DOE to conduct verification testing to ensure that models rated with an AEDM perform to their certified ratings. As part of the verification testing process, the Working Group recommended that a manufacturer may elect to have a DOE representative and a manufacturer’s representative on site for the initial test of up to 10 percent of the basic models that they have rated with an AEDM. DOE adopted most of the provisions from the October 2013 AEDM SNOPR in a December 31, 2013 final rule (“the December 2013 final rule”). 78 FR 79579. However, commenters raised concerns over DOE’s proposal allowing manufacturers to witness verification tests. In reviewing their comments, DOE determined that its proposed regulatory text, which was based in large part on the Working Group's recommendation, may not have been sufficiently clear. As a result, DOE published a Supplemental Notice of Proposed Rulemaking (“the September 2014 SNOPR”) clarifying the process for witnessing the test set-up as part of the AEDM verification process. The
Department’s intent was to establish a clear process while ensuring that the regulatory text reflects the recommendations of the Working Group. 79 FR 57842 (September 26, 2014).

The final rule adopts the approach proposed in the September 2014 SNOPR.

II. Discussion of Specific Revisions to DOE’s Regulations for Alternative Efficiency Determination Methods Verification Testing

As described in the background section of this notice, DOE proposed clarifications regarding witnessing the verification test set-up for models rated with an AEDM. See 79 FR 57842. DOE received three comments in response -- two from manufacturers and one from a trade association. These comments are discussed in more detail below, and a full set of comments can be found at: http://www.regulations.gov/#!docketDetail;D=EERE-2011-BT-TP-0024.

Table II-1. Stakeholders That Submitted Comments to the SNOPR

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<tr>
<th>Name</th>
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<tr>
<td>Air-Conditioning, Heating, and Refrigeration Institute</td>
<td>AHRI</td>
<td>Trade Association</td>
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<td>Continental Refrigerator</td>
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<td>Manufacturer</td>
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Manufacturer Presence During Verification Testing

DOE proposed regulatory text to state explicitly that manufacturers may elect to witness the test set-up of verification tests. DOE proposed this clarification to better align the regulatory text with the Working Group’s recommendation on this issue. See 79 FR at 57845.
Continental suggested that, given its own problematic experiences with third-party testing, DOE should allow manufacturers the option to be present for the duration of any verification test to ensure that no issues requiring additional manufacturer input arise. (Continental, No. 0111 at p.1) Continental went on to state that they understand and concur with DOE’s decision to only allow manufacturers to be present for the test setup, given manufacturer’s ability to review the test data, calculations and final results. (Id.)

DOE’s proposed approach to verification testing uses a number of different steps to help ensure that commercial HVAC, WH, and refrigeration equipment is tested correctly. First, the proposal would allow manufacturers to witness the set-up for AEDM verification testing for a selection of basic models rated with an AEDM. Second, if a lab encounters an issue during a verification test and requires additional information to test in accordance with the applicable DOE test procedure, under already existing regulations, DOE may coordinate a meeting between the manufacturer and the test facility to resolve that issue. See 10 CFR 429.70(c)(5)(iv)(E). Third, if a model performs worse than its certified rating during testing, DOE also already provides the manufacturer with the test report, and manufacturers may present any claims that the test was performed incorrectly. See 10 CFR 429.70(c)(5)(v). In light of these pre-existing provisions, expanding the witness testing provisions beyond the Working Group’s recommendation to allow manufacturers to witness the set-up of the test is unnecessary. Consequently, consistent with the Working Group’s recommendation, DOE is adopting regulatory text that allows manufacturers to elect to witness the test set-up for a basic model. That election would be made as part of that basic model’s certification report.
10 Percent Witness Testing Limitation

In the September 2014 SNOPR, DOE proposed to maintain that a manufacturer may select up to 10 percent of its certified basic models rated with an AEDM to witness the set-up of any verification test performed by DOE. DOE remarked that this threshold was negotiated through detailed discussions with the Working Group, who collectively concluded that this level would be acceptable to both industry and efficiency advocates while not being overly burdensome for DOE to administer. DOE noted that manufacturers were not required to select 10 percent of eligible basic models and that manufacturers could decline to attend the test set-up when notified. DOE also noted that the 10 percent was a limit on how many basic models a manufacturer might pre-select for witnessing test set-up; it was not an indication that DOE would test 10 percent of that manufacturer’s basic models. 79 FR at 57846.

Hussmann expressed little confidence that a third-party laboratory can properly set-up and test a remote supermarket case because third-party laboratories do not understand the issues to look for prior to and during an actual test – issues like discharge temperature and air flow. Hussmann recommended that remote supermarket case manufacturers should be allowed to be present at all test set-ups (rather than simply 10 percent) and data collection periods (rather than just set-up) until the third-party laboratories have established thorough knowledge of how to prepare a remote supermarket case to be tested. (Hussmann, No. 0110 at pp 1-2) Hussmann provided no substantiating data or other information for its assertions.

While DOE acknowledges manufacturer concerns that their equipment is tested properly, DOE disagrees that supermarket case manufacturers (along with other commercial refrigeration
equipment manufacturers who will be similarly affected by this provision) should be allowed to witness the set-up and data collection of all remote condensing commercial refrigerator and freezer verification tests. The Department reiterates its position from the Working Group negotiation meetings that third-party test facilities should have sufficient expertise in conducting the relevant test and that DOE’s test procedures should be written in a manner that allows the test facility to administer the test procedure without DOE’s or a manufacturer’s supervision.


Moreover, the Working Group, which included Hussmann, unanimously voted in favor of the 10 percent approach detailed in the September 2014 NOPR. ([Docket No. EERE–2013–BT–NOC–0023], 2013-06-24 Appliance Standards and Rulemaking Federal Advisory Committee Commercial HVAC, WH, and Refrigeration Certification Working Group Alternative Efficiency Determination Methods, No. 0046 at p. 5) After reaching a consensus among the broad array of interests represented at the numerous ASRAC meetings that led to the development of this approach, DOE is highly reluctant, without further substantive and compelling data, to alter the comprehensively crafted and unanimously supported recommendation set forth by the Working Group.

**Applying the 10 Percent Limit**

Continental commented that it appreciated DOE’s efforts to clarify the rules regarding witnessing the test set-up for up to 10 percent of the manufacturer’s certified basic models rated with an AEDM. Continental sought, however, additional clarity regarding DOE’s proposal in the
form of additional sample scenarios to further explain DOE’s approach. (Continental, No. 0111 at p. 2)

In response to Continental’s request, DOE is clarifying that a manufacturer may witness the test set-up for up to 10 percent of the basic models rated with an AEDM per validation class submitted to DOE for certification. The validation classes for commercial HVAC, WH, and refrigeration equipment can be found in 10 CFR 429.70(c)(2)(iv). As an example, if a manufacturer submits for certification 100 basic models of single package vertical air conditioners rated with an AEDM and 100 basic models of package terminal air conditioners rated with an AEDM, then the manufacture may elect to witness the test set-up for up to 10 single package vertical air conditioners and 10 package terminal air conditioners because single package vertical air conditioners and package terminal air conditioners fall into separate validation classes. In contrast, if a manufacturer submits to DOE for certification 100 single package vertical air conditioners rated with an AEDM and 100 single package vertical heat pumps rated with an AEDM, then the manufacturer may elect to witness the test set-up no more than 20 basic models made up of any combination of single package vertical air conditioners and/or single package vertical heat pumps because single package vertical air conditioners and single package vertical heat pumps are part of the same validation class. The manufacturer may select any combination of models rated with an AEDM within the same validation class for witnessing the test set-up of a verification test.

Further, DOE is clarifying that if a manufacturer submits for certification fewer than 10 basic models rated with an AEDM per validation class, then the manufacturer may elect to
witness the verification test set-up for one basic model from that validation class. Manufacturers that submit for certification 10 or more basic models rated with an AEDM per validation class must use the following method to determine the maximum number of basic models for which it may witness the verification test set-up. The manufacturer should first calculate 10 percent of the total number of basic models rated with an AEDM per validation class, and then truncate the resulting product. For example, if a manufacturer submits for certification 56 water source heat pump basic models rated with an AEDM, then the manufacturer may elect 5 water source heat pump basic models to witness the verification test set-up.

DOE plans to provide additional examples in a separate guidance document.

Additionally, DOE notes that if a manufacturer selects one or more individual models per basic model then DOE considers the manufacturer to have selected the entire basic model, including all individual models associated with it as a model for which the manufacturer opts to witness the verification test set-up. That basic model will count towards the total number of basic models for which the manufacturer has elected to witness the verification test set-up and is subject to the 10 percent limit.

Consistent with the above discussion, this final rule adopts regulations allowing manufacturers to witness the set-up of a selection of verification test performed by DOE. Manufacturers may select up to 10 percent of its basic models per validation class submitted to DOE for certification and rated with an AEDM.
The Department also proposed a framework to address situations where a manufacturer exceeds the 10 percent limit. See 79 FR at 57846. If the unit is obtained through retail channels, DOE will review the certification submissions from the manufacturer that were on file as of the date DOE purchased a basic model. If the unit is obtained directly from the manufacturer, DOE will review the certification submissions from the manufacturer that were on file as of the date DOE notifies the manufacturer that the basic model has been selected for testing. DOE will review the certification submissions from the manufacturer to determine if the manufacturer has chosen to be present for testing of the selected basic model. DOE will also verify that the manufacturer has not selected more than 10 percent of the manufacturer’s basic models per validation class rated with an AEDM and submitted to DOE for certification. If DOE discovers that the manufacturer has exceeded the 10 percent limit, DOE will notify the manufacturer of this fact and deny its request to be present for the testing of the selected basic model. The manufacturer must update its certification submission to ensure it has selected no more than 10 percent of its basic models per validation class rated with an AEDM to witness the test set-up for any future verification testing. See id. DOE received no comments on this aspect of the proposal and is adopting it in this final rule.

Retesting

In the September 2014 SNOPR, DOE proposed that the 10 percent requirement would apply to all of the basic models per validation class rated with an AEDM that are submitted to DOE for certification by a given manufacturer no matter how many AEDMs a manufacturer has used to develop its ratings. See id. DOE proposed that it would perform testing without a manufacturer's representative present for each basic model DOE selects for assessment testing
unless either: (1) The manufacturer has elected to have the opportunity to witness the test set-up as part of its allocated 10 percent; or (2) the manufacturer requires the basic model to be started only by a factory-trained installer per the installation manual instructions. For those basic models that a manufacturer has requested to witness the initial verification test set-up, the manufacturer would be unable to request that the unit be retested. The results from this initial test would be used to make a definitive determination regarding the validity of the basic model's rating from the AEDM. For those basic models that are initially tested without the manufacturer present for test set-up, a manufacturer would be automatically eligible to request a retest for those basic models where the initial results indicate a potential rating issue (non-compliance or discrepancy with the certified rating). See id.

AHRI commented that DOE’s proposal that a manufacturer forfeits any opportunity to request a retest of the basic model if the manufacturer’s representative is present for the initial test set-up for any reason is too severe. AHRI added that the provision incorrectly assumes that all problems that may arise during the course of an efficiency test are related to an issue involving the set-up of the unit. AHRI agreed with this proposal insofar as it limits the manufacturer’s ability to request a retest because of a set-up issue. However, if some other problem occurs during the testing which is unrelated to any set-up procedure, the manufacturer should still have the option to request a retest. AHRI suggested that the language be rewritten to state, “If a manufacturer’s representative is present for the initial test set-up for any reason, the manufacturer forfeits any opportunity to request a retest of the basic model based on a claim that the unit was set up improperly.” (AHRI, No. 0112 at 2)
DOE disagrees with AHRI’s assessment. The Working Group unanimously recommended that manufacturers who are on-site for the test set-up of a verification test would not be allowed to automatically request a retest. ([Docket No. EERE–2013–BT–NOC–0023], Department of Energy, 2013-06-24 Appliance Standards and Rulemaking Federal Advisory Committee Commercial HVAC, WH, and Refrigeration Certification Working Group Alternative Efficiency Determination Methods, No. 0046 at p. 5]) Additionally, attending the set-up of a verification test is optional. As proposed in the September 2014 SNOPR, when DOE selects a model for verification testing and the manufacturer has elected in its certification report to witness that model’s testing set-up, DOE will alert the manufacturer of its testing selection. At this point, the manufacturer may decide whether to be present at the set-up of the verification test. 79 FR at 57846.

DOE also disagrees with AHRI’s suggestion to allow manufacturers to automatically require the Department to retest for reasons other than improper set-up. In the case where a model fails to meet its certified rating, DOE provides the manufacturer with all documentation related to the test set-up, test conditions, and test results for the unit. At this time the manufacturer may present claims regarding the validity of the test. 10 CFR 429.70(c)(5)(v) If the manufacturer identifies problems that occurred during the test that impact the validity of the test (e.g., a malfunctioning measurement device), DOE would consider the test to be invalid. DOE does not make compliance determinations based on invalid testing and would retest the sample unit to obtain valid test results. DOE does not believe that, in the absence of any problems with the conduct of the verification test, it is necessary to permit the retesting of a unit when a
manufacturer has already attended the verification test’s set-up. Consequently, DOE’s adopted approach does not permit the retesting of a basic model under these circumstances. (In contrast, for those basic models that are initially tested without the manufacturer present for test set-up, a manufacturer would be automatically eligible to request a retest for those basic models where the initial results indicate a potential rating issue.)

DOE Notification to Manufacturers

In the September 2014 SNOPR, DOE proposed the following scenarios for notifying the manufacturer if DOE conducts AEDM verification testing on a basic model for which a manufacturer elected to witness the test set-up. If the unit is obtained through retail channels, DOE would notify the manufacturer of the basic model’s selection for testing and provide the manufacturer the option to be present for test set-up once the unit has arrived at the test laboratory and is scheduled to be tested. If the manufacturer does not respond within five calendar days, the manufacturer would waive the option to be present for test set-up, and DOE would then proceed with the test set-up without a manufacturer’s representative present. If DOE has obtained a unit directly from the manufacturer, DOE would provide the manufacturer with the option to be present for test set-up at the time the unit is ordered. DOE would then specify the date (not less than five calendar days) by which the manufacturer would notify DOE whether the manufacturer chooses to have a representative present. If the manufacturer does not notify DOE of its choice by the date specified, the manufacturer would waive the option to be present for test set-up. DOE would then proceed with the test set-up without a manufacturer’s representative present. DOE also notes that any time a manufacturer’s representative requests to be on-site for the test set-up, a DOE representative would also be present at the third-party test
facility. Additionally, 10 CFR 429.70(c)(5)(iv)(A) would continue to apply prior to, during, and after the manufacturer’s representative is on site; that is, the manufacturer’s representative cannot communicate with a third-party test facility regarding verification testing without the DOE representative present. DOE received no comments on this aspect of the proposal and is adopting it in this final rule.

Supplemental Information

DOE proposed to amend its regulations to provide that information necessary for testing certain products (such as the override code for controls that would otherwise prevent the completion of testing in accordance with the applicable DOE test procedure) must accompany the certification submission for a basic model of those products. DOE also proposed that failure to provide this information would preclude a manufacturer being present for testing of a basic model of its product. If, in the course of testing a selected basic model, DOE discovers that the necessary information for completing the test has not been provided, DOE will contact the manufacturer to obtain that information and complete the testing. The September 2014 SNOPR also explained that the failure to submit with a certification report equipment-specific, supplemental information necessary to operate the basic model is a prohibited act as described at 10 CFR 429.102(a)(1), subject to the maximum civil penalty described at 10 CFR 429.120. 79 FR at 57845.

AHRI commented that it did not recall any discussion by the Working Group where the failure to supply supplemental information would be considered a prohibited act. AHRI asserted that DOE’s proposed approach was an inappropriate and unnecessary expansion of the scope of
prohibited acts. AHRI added that, if a manufacturer does not provide supplemental information, the model will likely fail testing. AHRI also stated that, because a manufacturer cannot provide additional information at any time other than at certification, a model would fail the verification test if the manufacturer failed to provide the required information. At that point, DOE would be able to apply fully the penalties and remedies specified. (AHRI, No. 0112, at 1-2)

AHRI’s comments suggest that it misunderstood the purpose of these portions of the proposal. DOE may determine a basic model’s compliance with the applicable energy conservation standard only through testing of that basic model. 10 CFR 429.106 and 429.110(c)(3). AHRI appears to be commenting about situations in which it may be highly desirable for a manufacturer to provide testing instructions because the basic model is not likely to pass verification testing without those instructions. DOE’s proposal addressed a problem wherein DOE cannot test – it is impossible to test – a basic model without additional testing information. For example, DOE has found that certain PTACs require special codes to be entered to make the unit perform under test conditions; without those codes, the unit will not perform at test conditions and DOE cannot obtain a valid test. In such a situation, DOE proposed to contact the manufacturer, but the manufacturer would forfeit its opportunity to be present for test set-up. 79 FR at 57846

Contrary to AHRI’s assertion that DOE would not consider any testing instructions not provided at certification under any circumstances, DOE explained in the September 2014 SNOPR that, if a manufacturer has not provided supplemental information required for testing, then DOE will obtain the information from the manufacturer and complete the testing. 79 FR at
In addition, if for other reasons DOE is unable to test a unit, the Working Group recommended, and DOE has already codified in its regulations, that DOE may coordinate a meeting between the manufacturer and test facility to resolve any technical issues. See 10 CFR 429.70(c)(5)(iv)(E).

In this rule, DOE is requiring that, if necessary to run a valid test, the equipment-specific, supplemental information for commercial HVAC, WH, and refrigeration equipment must include any additional testing and testing set-up instructions.

DOE also proposed that, if the unit is obtained through retail channels, DOE will review the certification submissions from the manufacturer that were on file as of the date DOE purchased a basic model. If DOE has obtained a unit directly from the manufacturer, DOE will review the certification submissions from the manufacturer that were on file as of the date DOE notifies the manufacturer that the basic model has been selected for testing. At this time, DOE will determine if the manufacturer provided necessary supplemental instructions. Additionally, for the purposes of conducting the verification test DOE will use the most recent version of supplemental instructions on file as of the date DOE purchased a basic model or the date DOE notified the manufacturer of the verification testing. DOE received no comments on these proposals and is adopting them in this rule.

DOE notes that manufacturers will also need to provide the complete name of the PDF containing the supplemental testing instructions as part of the certification report. If the
manufacturer changes the supplemental testing instructions and as a result changes the file name, then the manufacturer must update the certification report accordingly.

DOE notes that 10 CFR 429.102(a)(1) establishes that the failure to properly certify covered products and covered equipment in accordance with 10 CFR 429.12 and 10 CFR 429.14 through 429.54 is a prohibited act. The Working Group recommended that manufacturers of certain kinds of commercial refrigeration, HVAC, and WH equipment should be required to submit a supplemental Portable Document Format (PDF) file with additional testing information with the certification report. The Working Group specified that the supplemental information would be required for commercial refrigeration equipment and most types of commercial HVAC equipment. DOE codified these requirements in 10 CFR 429.42(b)(4) and 10 CFR 429.43(b)(4). DOE’s statement in the September 2014 SNOPR regarding the consequences of failing to provide supplemental information necessary to operate the basic model information was reiterating an existing prohibited act subject to the maximum civil penalty prescribed at 10 CFR 429.120 – not proposing a new provision or reflecting a change in regulations due to the Working Group’s recommendations.

Private Model Numbers

DOE proposed to clarify its treatment of “private” model numbers under 10 CFR 429.7(b)(3). “Private” model numbers were created in a final rule published May 5, 2014, which adopted the recommendations of the Working Group with respect to the data elements to include in certification reports. See 79 FR 25486, 25491. These “private” models numbers addressed
concerns raised by Working Group participants during the negotiated rulemaking indicating that
the model numbers can, in certain circumstances, comprise confidential business information.
The Working Group reached a consensus that, in limited circumstances, manufacturers should be
able to identify when disclosure of an individual model number would reveal confidential
business information and that DOE should treat that information as confidential in those specific
instances. DOE has discovered, however, that, as drafted, the language at 10 CFR 429.7 may
permit a much broader range of model numbers to be identified as “private” than had been
intended, which would result in fewer identified models in DOE’s public Compliance
Certification Database. Specifically, the current language could be interpreted to permit a
manufacturer to mark as “private” any model number that is not available in public marketing
materials. Accordingly, DOE proposed to revise the regulatory text to better reflect the
negotiated position of the working group. DOE received no comments on this aspect of the
proposal and is adopting it in this final rule.

Variable Refrigerant Flow Systems

DOE also clarified in its September 2014 SNOPR that variable refrigerant flow system
assessment and enforcement testing is governed by 10 CFR 431.96(f), and would not be subject
to any of the proposed requirements. 79 FR at 57845. DOE received no comments on this
aspect of the proposal and is adopting this approach in the final rule.

Certification Templates

Finally, Continental urged DOE to publish the product templates for certifying
commercial refrigeration equipment – specifically, for equipment with either single compartment
or multiple compartments -- on the Compliance Certification Management System web page as quickly as possible. Continental believes a minimum of 90 calendar days should have been allowed for manufacturers to complete their certifications. (Continental, No. 0111 at p. 2) The CRE certification templates are available at:
https://www.regulations.doe.gov/ccms/templates/product_templates

DOE notes that it adopted the certification requirements for commercial refrigeration equipment in a final rule for which manufacturers negotiated to have over 180 days to collect the required certification information. See 79 FR 25486 (May 5, 2014). Accordingly, DOE will not provide additional time to supplement that which has already been provided.

III. Procedural Issues and Regulatory Review

A. Review Under Executive Order 12866

The Office of Management and Budget has determined that test procedure rulemakings do not constitute “significant regulatory actions” under section 3(f) of Executive Order 12866, Regulatory Planning and Review, 58 FR 51735 (Oct. 4, 1993). Accordingly, this action was not subject to review under the Executive Order by the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget (OMB).

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601, et seq.) requires the preparation of a regulatory flexibility analysis (RFA) 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 (August 16, 2002), DOE published procedures and policies on February 19, 2003 to ensure that the potential impacts of its rules on small entities are properly considered during the DOE rulemaking process. 68 FR 7990. DOE has made its procedures and policies available on the Office of the General Counsel’s website:


DOE reviewed the requirements in the Final Rule under the provisions of the Regulatory Flexibility Act and the procedures and policies published on February 19, 2003. As discussed in more detail below, DOE found that the provisions of this rule will not increase testing and/or reporting burden. Accordingly, manufacturers will not experience increased financial burden as a result of this rulemaking.

This Final Rule clarifies how DOE intends to exercise its authority to validate AEDM performance and verify the performance of commercial HVAC, WH, and refrigeration equipment certified using an AEDM. Specifically, DOE is allowing representatives of commercial HVAC, WH, and refrigeration equipment manufacturers to witness the test set-up for DOE-initiated verification testing for up to 10 percent of a manufacturer’s basic models certified to DOE and that are rated with an AEDM. The selection of basic models and the decision to witness the test set-up for verification testing is at the discretion of the manufacturer. Thus, because these proposed changes would apply irrespective of a manufacturer’s size and
would provide these entities with added flexibility to witness the testing set-up of their equipment, DOE certifies that this rulemaking would not have a significant impact on a substantial number of small entities.

C. Review Under the Paperwork Reduction Act

Manufacturers of the covered equipment addressed in the Final Rule must certify to DOE that their equipment comply with any applicable energy conservation standards. In certifying compliance, manufacturers must test their equipment according to the applicable DOE test procedures for the given equipment type, including any amendments adopted for those test procedures, or use the appropriate AEDMs to develop the certified ratings of the basic models. DOE has established regulations for the certification and recordkeeping requirements for all covered consumer products and commercial equipment, including the equipment at issue in this rule. (79 FR 25486 (May 5, 2014)). The collection-of-information requirement for these certification and recordkeeping provisions is subject to review and approval by OMB under the Paperwork Reduction Act (PRA). This requirement has been approved by OMB under OMB Control Number 1910-1400. Public reporting burden for the certification is 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

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 is changing DOE’s verification testing regulations so it would not affect the amount, quality or distribution of energy usage, and, therefore, would not result in any environmental impacts. Thus, this rulemaking is covered by Categorical Exclusion A6 under 10 CFR part 1021, subpart D. Accordingly, neither an environmental assessment nor an environmental impact statement is required.

E. Review Under Executive Order 13132

Executive Order 13132, “Federalism,” 64 FR 43255 (August 4, 1999) imposes certain requirements on agencies formulating and implementing policies or regulations that preempt State law or that have Federalism implications. The Executive Order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. The Executive Order also requires agencies to have an accountable process to ensure meaningful and timely input by State and local officials in 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 rulemaking 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 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(d)) No further action is required by Executive Order 13132.

F. Review Under Executive Order 12988

Regarding the review of existing regulations and the promulgation of new regulations, section 3(a) of Executive Order 12988, “Civil Justice Reform,” 61 FR 4729 (Feb. 7, 1996), imposes on Federal agencies the general duty to adhere to the following requirements: (1) eliminate drafting errors and ambiguity; (2) write regulations to minimize litigation; (3) provide a clear legal standard for affected conduct rather than a general standard; and (4) promote simplification and burden reduction. 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 sections 3(a) and 3(b) to determine whether they are met or it is unreasonable to meet one or
more of them. DOE has completed the required review and determined that, to the extent permitted by law, this 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. Pub. L. No. 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; also available at http://energy.gov/gc/office-general-counsel. DOE examined this rulemaking according to UMRA and its statement of policy and determined that the rule contains neither an intergovernmental mandate, nor a mandate that may result in the expenditure of $100 million or more in any year. Accordingly, 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 Final 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

DOE has determined, under Executive Order 12630, “Governmental Actions and Interference with Constitutionally Protected Property Rights,” 53 FR 8859 (March 18, 1988), that this regulation 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 agencies to review most disseminations of information to the public under guidelines established by each agency pursuant to general guidelines issued by OMB. OMB’s guidelines were published at 67 FR 8452 (Feb. 22, 2002), and DOE’s guidelines were published at 67 FR 62446 (Oct. 7, 2002). DOE has reviewed the 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 OMB, a Statement of Energy Effects for any proposed significant energy action. A “significant energy action” is defined as any action by an agency that promulgated or is expected to lead to promulgation of a final rule, and that: (1) is a significant regulatory action under Executive Order 12866, or any successor order; and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (3) is designated by the Administrator of OIRA as a significant energy action. For any proposed significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use should the proposal be implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use.

Today’s rule allows manufacturers of commercial HVAC, WH, and refrigeration equipment the opportunity to witness the set-up for DOE verification testing for up to 10 percent of basic models submitted to DOE for certification and rated with an AEDM, and 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, 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 rule authorizes or requires use of commercial standards, the notice of 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 Federal Trade Commission (FTC) concerning the impact of the commercial or industry standards on competition. Today’s rule amending DOE’s regulations relating to the verification test procedure for commercial HVAC, WH, and refrigeration equipment rated with an AEDM does not involve the use of any commercial standards.

M. Congressional Notification

As required by 5 U.S.C. 801, DOE will report to Congress on the promulgation of this rule before its effective date. The report will state that it has been determined that the rule is not a “major rule” as defined by 5 U.S.C. 804(2).
IV. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this supplemental notice of proposed rulemaking.

List of Subjects in 10 CFR Part 429

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

Issued in Washington, DC, on December 22, 2014.

Kathleen B. Hogan
Deputy Assistant Secretary for Energy Efficiency
Energy Efficiency and Renewable Energy
For the reasons set forth in the preamble, DOE is amending part 429 of chapter II, subchapter D, of title 10 of the Code of Federal Regulations, as set forth below:

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:


2. Section 429.7 is amended by revising the paragraph (b) introductory text by removing the words “it is” and by revising paragraph (b)(3) to read as follows:

§429.7 Confidentiality.

* * * * *

(b) * * *

(3) Disclosure of the individual, manufacturer model number would reveal confidential business information as described at 10 CFR 1004.11 – in which case, under these limited circumstances, a manufacturer may identify the individual manufacturer model number as a private model number on a certification report submitted pursuant to §429.12(b)(6).

* * * * *

3. Section 429.41 is amended by revising paragraph (b)(4) to read as follows:

§429.41 Commercial warm air furnaces.

* * * * *
(4) Pursuant to §429.12(b)(13), a certification report may include supplemental testing instructions in PDF format. If necessary to run a valid test, the equipment-specific, supplemental information must include any additional testing and testing set up instructions (e.g., specific operational or control codes or settings), which would be necessary to operate the basic model under the required conditions specified by the relevant test procedure. A manufacturer may also include with a certification report other supplementary items in PDF format (e.g., manuals) for DOE consideration in performing testing under subpart C of this part.

4. Section 429.42 is amended by revising paragraph (b)(4) to read as follows:

§429.42 Commercial refrigerators, freezers, and refrigerator-freezers.

* * * * *

(b) * * *

(4) Pursuant to §429.12(b)(13), a certification report must include supplemental information submitted in PDF format. The equipment-specific, supplemental information must include any additional testing and testing set up instructions (e.g., charging instructions) for the basic model; identification of all special features that were included in rating the basic model; and all other information (e.g., any specific settings or controls) necessary to operate the basic model under the required conditions specified by the relevant test procedure. A manufacturer may also include with a certification report other supplementary items in PDF format (e.g., manuals) for DOE to consider when performing testing under subpart C of this part.
5. Section 429.43 is amended by revising paragraph (b)(4) introductory text to read as follows:

§429.43 Commercial heating, ventilating, air conditioning (HVAC) equipment.

* * * * *

(b) * * *

(4) Pursuant to §429.12(b)(13), a certification report must include supplemental information submitted in PDF format. The equipment-specific, supplemental information must include any additional testing and testing set up instructions (e.g., charging instructions) for the basic model; identification of all special features that were included in rating the basic model; and all other information (e.g., operational codes or component settings) necessary to operate the basic model under the required conditions specified by the relevant test procedure. A manufacturer may also include with a certification report other supplementary items in PDF format (e.g., manuals) for DOE consideration in performing testing under subpart C of this part. The equipment-specific, supplemental information must include at least the following:

* * * * *

6. Section 429.44 is amended by revising paragraph (b)(4) to read as follows:

§429.44 Commercial water heating equipment.

* * * * *

(b) * * *

(4) Pursuant to §429.12(b)(13), a certification report may include supplemental testing instructions in PDF format. If necessary to run a valid test, the equipment-specific, supplemental information must include any additional testing and testing set up instructions (e.g., whether a
bypass loop was used for testing) for the basic model and all other information (e.g., operational
codes or overrides for the control settings) necessary to operate the basic model under the
required conditions specified by the relevant test procedure. A manufacturer may also include
with a certification report other supplementary items in PDF format (e.g., manuals) for DOE
consideration in performing testing under subpart C of this part.

* * * * *

7. Section 429.60 is amended by revising paragraph (b)(4) to read as follows:

§429.60 Commercial packaged boilers.

* * * * *

(b) * * *

(4) Pursuant to §429.12(b)(13), a certification report may include supplemental testing
instructions in PDF format. If necessary to run a valid test, the equipment-specific, supplemental
information must include any additional testing and testing set up instructions (e.g., specific
operational or control codes or settings), which would be necessary to operate the basic model
under the required conditions specified by the relevant test procedure. A manufacturer may also
include with a certification report other supplementary items in PDF format (e.g., manuals) for
DOE consideration in performing testing under subpart C of this part.

* * * * *

8. Section 429.70 is amended by adding paragraph (c)(5)(iii) to read as follows:

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

* * * * *
(A) Except when testing variable refrigerant flow systems (which are governed by the rules found at §431.96(f)), testing will be completed without a manufacturer representative on-site. In limited instances further described in paragraph (c)(5)(iii)(B) of this section, a manufacturer and DOE representative may be present to witness the test set-up.

(B) A manufacturer’s representative may request to be on-site to witness the test set-up if:

(1) The installation manual for the basic model specifically requires it to be started only by a factory-trained installer; or

(2) The manufacturer has elected, as part of the certification of that basic model, to have the opportunity to witness the test set-up. A manufacturer may elect to witness the test set-up for the initial verification test for no more than 10 percent of the manufacturer’s basic models submitted for certification and rated with an AEDM per validation class specified in section (c)(2)(iv) of this paragraph. The 10-percent limit applies to all of the eligible basic models submitted for certification by a given manufacturer no matter how many AEDMs a manufacturer has used to develop its ratings. The 10-percent limit is determined by first calculating 10 percent of the total number of basic models rated with an AEDM per validation class, and then truncating the resulting product. Manufacturers who have submitted fewer than 10 basic models rated with an AEDM for certification may elect to have the opportunity to witness the test set-up of one basic model. A manufacturer must identify the basic models it wishes to witness as part of its certification report(s) prior to the basic model being selected for verification testing.
(3) In those instances in which a manufacturer has not provided the required information as specified in §429.12(b)(13) for a given basic model that has been rated and certified as compliant with the applicable standards, a manufacturer is precluded from witnessing the testing set up for that basic model.

(C) A DOE representative will be present for the test set-up in all cases where a manufacturer representative requests to be on-site for the test set-up. The manufacturer’s representative cannot communicate with a lab representative outside of the DOE representative’s presence.

(D) If DOE has obtained through retail channels a unit for test that meets either of the conditions in paragraph (c)(5)(iii)(B) of this section, DOE will notify the manufacturer that the basic model was selected for testing and that the manufacturer may have a representative present for the test set-up. If the manufacturer does not respond within five calendar days of receipt of that notification, the manufacturer waives the option to be present for test set-up, and DOE will proceed with the test set-up without a manufacturer’s representative present.

(E) If DOE has obtained directly from the manufacturer a unit for test that meets either of the conditions in paragraph (c)(5)(iii)(B) of this section, DOE will notify the manufacturer of the option to be present for the test set-up at the time the unit is purchased. DOE will specify the date (not less than five calendar days) by which the manufacturer must notify DOE whether a manufacturer’s representative will be present. If the manufacturer does not notify DOE by the date specified, the manufacturer waives the option to be present for the test set-up, and DOE will proceed with the test set-up without a manufacturer’s representative present.

(F) DOE will review the certification submissions from the manufacturer that were on file as of the date DOE purchased a basic model (under paragraph (c)(5)(iii)(D) of this section)
or the date DOE notifies the manufacturer that the basic model has been selected for testing (under paragraph (c)(5)(iii)(E) of this section) to determine if the manufacturer has indicated that it intends to witness the test set-up of the selected basic model. DOE will also verify that the manufacturer has not exceeded the allowable limit of witness testing selections as specified in paragraph (c)(5)(iii)(B)(2) of this section. If DOE discovers that the manufacturer exceeded the limits specified in paragraph (c)(5)(iii)(B)(2), DOE will notify the manufacturer of this fact and deny its request to be present for the test set-up of the selected basic model. The manufacturer must update its certification submission to ensure it has not exceeded the allowable limit of witness testing selections as specified in paragraph (c)(5)(iii)(B)(2) to be present at set-up for future selections. At this time DOE will also review the supplemental PDF submission(s) for the selected basic model to determine that all necessary information has been provided to the Department.

(G) If DOE determines, pursuant to paragraph (c)(5)(ii) of this section, that the model should be tested at the manufacturer’s facility, a DOE representative will be present on site to observe the test set-up and testing with the manufacturer’s representative. All testing will be conducted at DOE’s direction, which may include DOE-contracted personnel from a third-party lab, as well as the manufacturer’s technicians.

(H) As further explained in paragraph (c)(5)(v)(B) of this section, if a manufacturer’s representative is present for the initial test set-up for any reason, the manufacturer forfeits any opportunity to request a retest of the basic model. Furthermore, if the manufacturer requests to be on-site for test set-up pursuant to paragraph (c)(5)(iii)(B) of this section but is not present on site, the manufacturer forfeits any opportunity to request a retest of the basic model.

*  *  *  *  *  *