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[6450-01-P]

DEPARTMENT OF ENERGY

10 CFR Parts 429 and 431

[EERE-2023-BT-CE-0001]

RIN 1904-AF48

Energy Conservation Program for Appliance Standards: Certification Requirements, Labeling Requirements, and Enforcement Provisions for Certain Consumer Products and Commercial Equipment

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

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

SUMMARY: The U.S. Department of Energy (“DOE”) proposes to establish and amend the certification provisions, labeling requirements, and enforcement provisions for specific types of consumer products and commercial and industrial equipment, as described in sections II and III of this proposed rule. DOE is proposing to establish and make amendments to the certification requirements, labeling requirements, and enforcement provisions for these products and equipment to ensure reporting that is consistent with currently applicable energy conservation standards and test procedures and to ensure DOE has the information necessary to determine the appropriate classification of products for the application of standards. DOE seeks comment from interested parties on all aspects of this proposal.

DATES: DOE will accept comments, data, and information regarding this proposal no later than **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. See section V, “Public Participation,” for details.

DOE will hold a public meeting via webinar on Wednesday, October 17, 2023, from 1:00 p.m. to 4:00 p.m. See section V, “Public Participation,” for webinar registration information, participant instructions, and information about the capabilities available to webinar participants.

ADDRESSES: Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at *www.regulations.gov* under docket number EERE-2023-BT-CE-0001. Follow the instructions for submitting comments. Alternatively, interested persons may submit comments, identified by docket number EERE-2023-BT-CE-0001, by any of the following methods:

Email: ApplianceStandardsQuestions@ee.doe.gov. Include the docket number EERE-2023-BT-CE-0001 in the subject line of the message.

Postal Mail: Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, Mailstop EE-5B, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 287-1445. If possible, please submit all items on a compact disc (“CD”), in which case it is not necessary to include printed copies.

Hand Delivery/Courier: Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, 1000 Independence Ave SW, Washington, DC, 20585. Telephone: (202) 287-1445. If possible, please submit all items on a CD, in which case it is not necessary to include printed copies.

No telefacsimiles (“faxes”) will be accepted. For detailed instructions on submitting comments and additional information on this process, see section V of this document.

Docket: The docket for this activity, which includes *Federal Register* notices, public meeting attendee lists and transcripts (if a public meeting is held), 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 webpage can be found at www.regulations.gov/docket/EERE-2023-BT-CE-0001. The docket webpage contains instructions on how to access all documents, including public comments, in the docket. See section V for information on how to submit comments through www.regulations.gov.

FOR FURTHER INFORMATION CONTACT:

Mr. Lucas Adin, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE-2J, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 287-5904. Email: ApplianceStandardsQuestions@ee.doe.gov.

Ms. Amelia Whiting, U.S. Department of Energy, Office of the General Counsel, GC-33, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 586-2588. Email: Amelia.Whiting@hq.doe.gov.

For further information on how to submit a comment, review other public comments and the docket, or participate in a public meeting (if one is held), contact

the Appliance and Equipment Standards Program staff at (202) 287-1445 or by email:

ApplianceStandardsQuestions@ee.doe.gov.

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I. Authority and Background

A. Authority

The Energy Policy and Conservation Act, Pub. L. 94-163, as amended (“EPCA”),¹ authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42 U.S.C. 6291–6317) Title III, Part B of EPCA² established the Energy Conservation Program for Consumer Products Other Than Automobiles, which sets forth a variety of provisions designed to improve energy efficiency, while Title III, Part C of EPCA,³ added by Pub. L. 95-619, Title IV, section 441(a), established the Energy Conservation Program for Certain Industrial Equipment, which sets forth a variety of provisions designed to improve energy efficiency. These products and equipment include central air conditioners and heat pumps (“CAC/HPs”), dishwashers (“DWs”), residential clothes washers (“RCWs”), pool heaters, dehumidifiers, external power supplies (“EPSs”), battery chargers, computer room air conditioners (“CRACs”), direct-expansion dedicated outdoor air systems (“DX-DOASes”), air cooled, three-phase, small commercial air conditioners and heat pumps with a cooling capacity of less than 65,000 Btu/h and air-cooled, three-phase (“three-phase, less than 65,000 Btu/h

¹ All references to EPCA in this document refer to the statute as amended through the Energy Act of 2020, Pub. L. 116-260 (Dec. 27, 2020), which reflect the last statutory amendments that impact Parts A and A-1 of EPCA.

² For editorial reasons, upon codification in the U.S. Code, Part B was redesignated Part A.

³ For editorial reasons, upon codification in the U.S. Code, Part C was redesignated Part A-1.

ACUACs and ACUHPs”), variable refrigerant flow air conditioners and heat pumps with a cooling capacity of less than 65,000 Btu/h (“three-phase, less than 65,000 Btu/h VRF”), commercial water heating equipment (“CWHs”), automatic commercial ice makers (“ACIMs”), walk-in coolers and walk-in freezers (“walk-ins”), commercial and industrial pumps, portable air conditioners (“portable ACs”), compressors, dedicated-purpose pool pump motors (“DPPPMs”), air cleaners, single package vertical units (“SPVUs”), and ceiling fan light kits (“CFLKs”), all of which are subjects of this document. (42 U.S.C. 6292(a)(3),(6-7), (11), and (20); 42 U.S.C. 6295(u),(cc), and (ff); 42 U.S.C. 6311(1)(A-D),(F-G), (K), and (2)(B)(i)).

The 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. Relevant provisions of EPCA specifically include definitions (42 U.S.C. 6291; 42 U.S.C. 6311), test procedures (42 U.S.C. 6293; 42 U.S.C. 6314), labeling provisions (42 U.S.C. 6294; 42 U.S.C. 6315), energy conservation standards (42 U.S.C. 6295; 42 U.S.C. 6313), and the authority to require information and reports from manufacturers (42 U.S.C. 6316; 42 U.S.C. 6296).

The Federal testing requirements consist of test procedures that manufacturers of covered products and equipment must use as the basis for: (1) certifying to DOE that their products or equipment comply with the applicable energy conservation standards adopted pursuant to EPCA (42 U.S.C. 6295(s); 42 U.S.C. 6316(a); 42 U.S.C. 6316(b); 42 U.S.C. 6296), and (2) making other representations about the efficiency of those consumer products or industrial equipment (42 U.S.C. 6293(c); 42 U.S.C. 6314(d)). Similarly, DOE must use these test procedures to determine whether

the products or equipment comply with relevant standards promulgated under EPCA. (42 U.S.C. 6295(s); 42 U.S.C. 6316(a); 42 U.S.C. 6316(b); 42 U.S.C. 6296)

EPCA authorizes DOE to enforce compliance with the energy and water conservation standards established for covered products and equipment. (42 U.S.C. 6299-6305; 42 U.S.C. 6316(a)-(b)) DOE has promulgated certification and/or enforcement regulations that include reporting requirements for covered products and equipment including CAC/HPs, DWs, RCWs, pool heaters, dehumidifiers, EPSs, battery chargers, CRACs, three-phase, less than 65,000 Btu/h ACUACs and ACUHPs, three-phase, less than 65,000 Btu/h VRF, CWHs, ACIMs, walk-ins, commercial and industrial pumps, portable ACs, compressors, SPVUs, and CFLKs. DOE is proposing certification and reporting requirements for DX-DOASes, DPPPMs, and air cleaners. *See* 10 CFR part 429. Additionally, DOE is amending labeling requirements for walk-ins. *See* 10 CFR part 431.305. The reporting requirements ensure that DOE has the information it needs to assess whether regulated products and equipment sold in the United States comply with the statutory and regulatory requirements applicable to each covered product and equipment type.

B. Background

DOE's certification regulations are a mechanism that DOE uses to help ensure compliance with its regulations by collecting information about the energy and water use characteristics of covered products and covered equipment distributed in commerce in the United States. Manufacturers of most covered products and covered equipment must submit a certification report for the duration of distribution, specifically (1) before a basic model is distributed in commerce, (2) annually thereafter, and (3) if the basic model is redesigned in a manner that increases the

consumption or decreases the efficiency of the basic model such that the certified rating is no longer supported by test data. 10 CFR 429.12. Additionally, manufacturers must report when production of a basic model has ceased and is no longer offered for sale as part of the next annual certification report following such cessation. 10 CFR 429.12(f). DOE requires the manufacturer of any covered product or covered equipment to establish, maintain, and retain the records of certification reports, of the underlying test data for all certification testing, and of any other testing conducted to satisfy the requirements of 10 CFR parts 429, 10 CFR part 430, and/or 10 CFR part 431 until 2 years after notifying DOE that a model has been discontinued. 10 CFR 429.71. Certification reports provide DOE and consumers with comprehensive, up-to-date efficiency information and support effective enforcement.

To ensure that all covered products and covered equipment distributed in the United States comply with DOE's energy and water conservation standards and reporting requirements, DOE has promulgated certification, compliance, and enforcement regulations in 10 CFR parts 429 and 431. On March 7, 2011, DOE published in the *Federal Register* a final rule regarding certification, compliance, and enforcement for consumer products and commercial and industrial equipment, which revised, consolidated, and streamlined DOE's existing certification, compliance, and enforcement regulations for certain consumer products and commercial and industrial equipment covered under EPCA. *See* 76 FR 12422. Since that time, DOE has completed multiple rulemakings regarding certification, compliance, and enforcement for specific covered products or equipment. *See* 79 FR 25486 (the May 5, 2014 Final Rule specific to certification of commercial and industrial heating, ventilation, and air

conditioning (“HVAC”), refrigeration, and water heating equipment) and 87 FR 43952 (the July 22, 2022 Final Rule amending certification provisions for CFLKs, general service incandescent lamps, incandescent reflector lamps, ceiling fans, consumer furnaces and boilers, consumer water heaters, DWs, commercial clothes washers, battery charges, and DPPPMs).

Additionally, if the Secretary has prescribed test procedures under section 6314 for any class of covered equipment, the Secretary shall prescribe a labeling rule applicable to such class of covered equipment. See 42 U.S.C. 6315(a). EPCA, however, also sets out certain criteria that must be met prior to prescribing a given labeling rule. Specifically, to establish these requirements, DOE must determine that: (1) labeling in accordance with Section 6315 is technologically and economically feasible with respect to any particular equipment class; (2) significant energy savings will likely result from such labeling; and (3) labeling in accordance with section 6315 is likely to assist consumers in making purchasing decisions. (42 U.S.C. 6315(h))

If these criteria are met, EPCA specifies certain aspects of equipment labeling that DOE must consider in any rulemaking establishing labeling requirements for covered equipment. At a minimum, such labels must include the energy efficiency of the affected equipment, as tested under the prescribed DOE test procedure, and may also require disclosure of the estimated operating costs and energy use. (42 U.S.C. 6315(b)) The labeling provisions shall include requirements the Secretary determines are likely to assist purchasers in making purchasing decisions, such as : requirements and directions for the display of the label; requirements for including on any label, or separately attaching to, or shipping with, the covered equipment, such additional information related to energy efficiency, energy use, and other measures of energy

consumption, including instructions for maintenance and repair of the covered equipment, as the Secretary determines is necessary to provide adequate information to purchasers; and requirements that printed matter displayed or distributed with the equipment at the point of sale also include the information required to be placed on the label. (42 U.S.C. 6315(c))

II. Synopsis of the Notice of Proposed Rulemaking

Since the previous final rule amending certification requirements for covered products (July 22, 2022; 87 FR 43952), DOE has proposed or finalized test procedures and/or energy conservation standards for multiple products and equipment. In this rulemaking, DOE is proposing to revise its certification, labeling, and enforcement regulations for certain covered products and equipment to align with these proposed and finalized amendments.

In this notice of proposed rulemaking (“NOPR”), DOE proposes to update the certification reporting requirements as follows:

- 1) CAC/HP.* Update the CAC/HP certification reporting requirements at 10 CFR 429.16 to reflect the current version of the test procedure at appendix M1 to subpart B of 10 CFR part 430 (“appendix M1”) including test condition information. Correct discrepancies in CAC/HP sampling plan to require using Student’s t-Distribution Values from appendix A to subpart B of part 429.
- 2) DW.* Align the DW certification reporting requirements with appendix C1 to subpart B of 10 CFR part 430 (“appendix C1”), and with appendix C2 to subpart B of 10 CFR part 430 (“appendix C2”). Manufacturers must use appendix C1 beginning July 17, 2023. If DOE adopts any amended

energy conservation standards based on appendix C2, manufacturers must use appendix C2 beginning on the standards' compliance date. Add reporting requirements specific to the energy and water use for DWs with water re-use systems and built-in reservoirs.

3) *RCWs*. Remove outdated certification reporting requirements for RCWs pertaining to appendix J1 to subpart B of 10 CFR part 430 ("appendix J1"), which has been removed. Update the existing certification reporting requirements pertaining to appendix J2 to subpart B of 10 CFR part 430 ("appendix J2") for consistency with test procedure terminology. Add a reporting requirement for test cloth lot used by a manufacturer for testing/certifying to align with RCW enforcement provisions outlined in 10 CFR Part 429.134(c). Add new certification reporting requirements specific to appendix J to subpart B of 10 CFR part 430 ("appendix J"), use of which would be required at such time as compliance is required with any amended energy conservation standards based on appendix J.

4) *Pool heaters*. Align pool heater certification reporting requirements with the amended energy conservation standards established in a final rule published on May 30, 2023 (88 FR 34624) to require reporting of thermal efficiency for electric pool heaters and establish new reporting requirements specific to electric pool heaters.

5) *Dehumidifiers*. Remove outdated certification reporting requirements for dehumidifiers pertaining to appendix X to subpart B of 10 CFR part 430 ("appendix X"), use of which is no longer required.

6) *EPSs*. Align EPS certification reporting requirements with the amended test procedure at appendix Z to subpart B of 10 CFR part 430 (“appendix Z”), use of which is required beginning February 15, 2023. Add reporting requirements to specify the output cord shipped with the EPS (or the manufacturer’s recommended output cord specifications). Update the existing EPS certification reporting requirements to align with the energy conservation standards established in the February 10, 2014 final rule (79 FR 7845), and require output voltage, which is needed to verify the applicable product class. Revise sales reporting requirements for EPSs exempt from energy conservation standards to include the years for which the sales number represents.

7) *Battery chargers*. Align battery charger certification reporting requirements with appendix Y1 to subpart B of 10 CFR part 430 (“appendix Y1”), use of which would be required for any future amended energy conservation standards for battery chargers.

8) *CRACs*. Align CRACs certification reporting requirements with amended energy conservation standards established in a final rule published in the Federal Register on June 2, 2023 (88 FR 36392) and require submission of a supplemental testing instructions file in PDF format. Establish alternative efficiency determination method (“AEDM”) tolerances for CRAC verification tests for NSenCOP.

9) *DX-DOAS*. Establish DX-DOAS certification reporting requirements for certifying compliance with the energy conservation standards established

in the November 1, 2022 final rule (87 FR 65651), compliance with which is required beginning May 1, 2024. Require submission of a supplemental testing instructions file in PDF format.

10) Commercial AC/HPs. Establish certification reporting requirements for three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF aligned with the energy conservation standards established in the final rule published on June 2, 2023 (88 FR 36392), compliance with which would be required beginning January 1, 2025. Correct discrepancies in sampling plan for three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF to specify that the Student's t-Distribution Values from appendix A to subpart B of part 429 should be used.

11) CWHs. Align CWH certification reporting requirements with amended energy conservation standards proposed in the May 19, 2022 NOPR (87 FR 30610). Add reporting requirements specific to commercial electric instantaneous water heaters. Additionally, add rated input reporting requirement for commercial electric storage water heaters.

12) ACIMs. Align existing ACIM certification reporting requirements with revised "energy use" and "condenser water use" definitions and terminology adopted in the amended test procedure at 10 CFR 431.134, use of which is required beginning October 27, 2023. Correct ACIM sampling requirements to remove discrepancy and require using the

Student's t-Distribution Values for a 95 percent one-tailed confidence interval.

13) *WICFs*. For walk-in refrigeration systems, add requirement to report whether each refrigeration system meets the definition of a carbon dioxide (“CO2”) unit cooler, detachable single-packaged dedicated system, or an attached split system, consistent with amendments to 10 CFR 431.302. Add requirements for submission of supplementary testing information if necessary to run a valid test and provide an option to report any compressor break-in duration used to obtain certified rating. Additionally, expand the certification reporting requirements for walk-in cooler and freezers with anti-sweat heater (“ASH”) doors. Revise labeling requirements for walk-in panels and walk-in refrigeration systems at 10 CFR 431.305.

14) *Commercial and Industrial Pumps*. Require certification reporting of commercial and industrial pump efficiency at best efficiency point (“BEP”), constant load pump energy rating, and variable load pump energy rating.

15) *Portable ACs*. Clarify existing certification reporting requirements for portable ACs and align them with instructions specified in the test procedure at appendix CC to subpart B of 10 CFR part 430 (“appendix CC”) and 10 CFR 429.62(a)(5).

16) Compressors. Establish an annual filing date of September 1 for compressors at 10 CFR 429.12(d).

17) DППPMs. Add certification reporting requirements for DППPMs when certifying compliance with the energy conservation standards proposed in the June 21, 2022 NOPR (87 FR 37122), and establish an annual filing date of September 1 at 10 CFR 429.12(d).

18) Air cleaners. Add certification reporting requirements for air cleaners when certifying compliance with the energy conservation standards adopted in the April 11, 2023 direct final rule, compliance with which will be required beginning December 31, 2023, and establish an annual filing date of December 1 at 10 CFR 429.12(d).

19) SPVAC/HPs. Align SPVAC/HPs certification reporting requirements with amended energy conservation standards proposed in the December 8, 2022 ECS NOPR (87 FR 75388) and add content requirements for supplemental testing instructions file in PDF format.

20) CFLKs. Clarify existing CFLK reporting requirements at 10 CFR 429.33(b)(2)(ii)(A).

DOE's current and proposed reporting requirements, as well as the reason for the proposed changes, are summarized in Table II.1.

Table II.1 Summary of Proposed Changes to Certification Reporting and Labeling Requirements Relative to Current Certification Reporting and Labeling Requirements

Current DOE certification reporting requirements	Proposed certification reporting requirements	Attribution
For CAC/HPs, no reporting requirement to indicate whether variable speed coil-only rating is based on non-communicating or communicating control.	Add reporting requirement to §429.16(e)(2)(vi) to specify whether variable speed coil-only rating is based on non-communicating or communicating control.	Required to determine applicable test conditions specified in appendix M1 test procedure.
For CAC/HPs, no reporting requirement to indicate whether system varies blower speeds with outdoor air conditions.	Add reporting requirement to §429.16(e)(4)(iv) to specify whether system varies blower speeds with outdoor air conditions.	Required to determine applicable test conditions specified in appendix M1 test procedure.
For CAC/HPs, current sampling requirements state to use Student's t-Distribution Values from "Appendix D", whereas appendix A to subpart B of part 429 contains the applicable Student's t-Distribution Values .	Correct §429.16(b)(3)(i)(B), (ii)(B), and (iii)(A)(2) to specify that the Student's t-Distribution Values in appendix A to subpart B of part 429 should be used.	Removes discrepancy from sampling provisions, improves clarity.
For DWs, reporting requirements in §429.19(b)(2) and (3) and list of materials incorporated by reference in §429.4 specify ANSI/AHAM DW-1-2010.	Remove referenced standard in §429.19(b)(2) and from the list of materials incorporated by reference in §429.4.	Ensures consistency between reporting requirements and DW test procedures.
For DWs, reporting requirements do not include cycle selected for energy test.	Add reporting requirements for cycle selected for energy test at heavy, medium, and light soil loads, whether the cycles are soil-sensing, and the options selected for the energy test at these soil loads (when testing in accordance with appendix C2) to §429.19(b)(3)(iv).	Required to ensure that information reported to DOE is consistent with the tested cycle requirements specified in appendix C2.
For DWs, reporting requirements do not include cleaning index.	Add reporting requirement for average cleaning index of sensor heavy response, sensor medium response, and sensor light response test cycles (when testing in accordance with appendix C2) to §429.19(b)(3)(v).	Required to ensure that the reported test cycle is a valid test cycle that meets the specified cleaning index threshold.
For DWs, reporting requirements do not reflect water re-use system DWs.	Add reporting requirements specific to water re-use system DWs to §429.19(b)(3)(vii), including energy use and water use associated with drain out and clean out events.	Required to account for extra energy use and water use associated with water re-use systems.
For DWs, reporting requirements do not reflect information needed for DWs with built-in reservoirs.	Add reporting requirements specific to DWs with built-in reservoirs to §429.19(b)(3)(viii), including reservoir capacity, prewash and main wash fill water volume, and total water consumption.	Required to account for water consumption of DWs with built-in reservoirs, and therefore determine compliance with the current energy conservation standards.
For DWs, no rounding requirements are specified in §429.19.	Add rounding requirements to §429.19(c).	Improves representativeness, repeatability, and reproducibility.
For RCWs, reporting requirements include outdated requirements associated with appendix J1.	Remove obsolete appendix J1 RCW reporting requirements from §429.20(b)(2)(i).	Appendix J1 has been removed from 10 CFR part 430.

Current DOE certification reporting requirements	Proposed certification reporting requirements	Attribution
For RCWs, “capacity” is required to be reported.	Update existing requirement to specify “clothes container capacity” rather than “capacity” at §429.20(b)(2)(ii).	Consistency in terminology between existing test procedure and reporting requirements.
For RCWs, reporting requirements do not include test cloth lot used by manufacturer for testing and certifying.	Add reporting requirement to §429.20(b)(3) for test cloth lot number used during testing to determine other reported values.	Required to ensure that correct remaining moisture content calculation is used for enforcement testing per RCW enforcement provisions specified in 10 CFR 429.134(c).
For RCWs, no reporting requirements for RCWs tested in accordance with appendix J test procedure.	Add reporting requirements for energy efficiency ratio, water efficiency ratio, type of control system, remaining moisture content, clothes container capacity, and type of loading when certifying in accordance with appendix J to §429.20(b)(2)(i).	Required to ensure compliance with proposed amendments to energy conservation standards.
For pool heaters, reporting requirement only includes thermal efficiency for gas-fired pool heaters.	Add reporting requirement for integrated thermal efficiency for both gas-fired and electric pool heaters to §429.24(b)(2)(i).	Required to determine compliance with the amended energy conservation standards.
For electric pool heaters, no reporting requirement for active electrical power.	Add reporting requirement for active electrical power for electric pool heaters to §429.24(b)(2)(ii).	Required to determine compliance with the amended energy conservation standards.
For dehumidifiers, reporting requirements include outdated requirements associated with appendix X.	Remove obsolete appendix X dehumidifier reporting requirements from §429.36(b)(2)(i).	Appendix X test procedure is no longer required for use.
For EPSs, no reporting requirement for output cord specifications.	Add reporting requirement for output cord specifications (or for EPSs shipped without an output cord, specifications for the manufacturer’s recommended output cord) to §429.37(b)(i)-(iv).	Required to conduct amended appendix Z test procedure.
For EPSs, no reporting requirements for output voltage.	Add reporting requirements for output voltage to §429.37(i) through (iv).	Required to determine compliance with currently applicable energy conservation standards.
For EPSs exempt from the energy conservation standards, only the number of units of exempt external power supplies sold during the most recent 12-calendar-month period ending on July 31, importer or manufacturer name and address, and brand name must be reported.	Add requirement that the year for which the sales number being reported represents to §429.37(b)(3) and (c).	Improved clarity, consistency with other similar reporting requirements.
For battery chargers, reporting requirements only reflect metrics associated with battery chargers tested in accordance with appendix Y.	Add reporting requirements to §429.39(b)(5) and (6) for battery chargers tested in accordance with newly adopted appendix Y1, multi-metric approach.	Required to determine compliance with any future amended energy conservation standards for battery chargers.
For CRACs, reporting requirements do not include provisions for certifying compliance with net sensible coefficient of performance standards.	Add reporting requirements specific to net sensible coefficient of performance to §429.43(b)(2)(ix)(B).	Required to determine compliance with the amended energy conservation standards.

Current DOE certification reporting requirements	Proposed certification reporting requirements	Attribution
For CRACs, reporting requirements do not include provisions for submitting a supplemental testing instructions file in PDF form.	Add supplemental testing instructions file requirements in PDF form for certification reports to §429.43(b)(4)(viii).	Required to ensure that testing conditions are met in the case of enforcement testing.
For CRACs, reporting requirements do not include indoor and outdoor unit individual model numbers.	Add reporting requirements for indoor and outdoor unit individual model numbers to §429.43(b)(6)(i).	Required to determine specific individual models distributed in commerce under each basic model.
For CRACs, current AEDM tolerances do not specify tolerances for NSenCOP verification tests.	Add tolerance of 5 percent to table 2 to §429.70(c)(5)(vi)(B) for CRAC verification tests for NSenCOP.	Required for consistency with allowable AEDMs for other product types and metrics.
For DX-DOASes, reporting requirements do not include provisions for certifying compliance with integrated seasonal moisture removal efficiency 2 and integrated seasonal coefficient of performance 2 standards.	Add reporting requirements for integrated seasonal moisture removal efficiency 2 and integrated seasonal coefficient of performance 2, as well as rated moisture removal capacity, rated supply airflow rate, and configuration of the basic model to §429.43(b)(2)(xi)(A) through (C).	Required to determine compliance with the energy conservation standards.
For DX-DOASes, reporting requirements do not include reporting requirements for systems with ventilation energy recovery systems (“VERS”).	Add reporting requirements for systems with VERS to §429.43(b)(3)(iii).	Required to fully ensure that enforcement provisions specified at §429.134(s) for DX-DOASes are met in the case of enforcement testing.
For DX-DOASes, reporting requirements do not include provisions for submitting a supplemental testing instructions file in PDF form.	Add supplemental testing instructions file requirements in PDF form for certification reports to §429.43(b)(4)(x).	Required to ensure that testing conditions are met in the case of enforcement testing.
For DX-DOASes, reporting requirements do not include indoor and outdoor unit individual model numbers.	Add reporting requirements for indoor and outdoor unit individual model numbers to §429.43(b)(6)(ii).	Required to determine specific individual models distributed in commerce under each basic model.
For three-phase less than 65,000 Btu/h ACUACs and ACUHPs and three-phase less than 65,000 Btu/h VRF, no reporting requirements for seasonal energy efficiency ratio 2 and heating seasonal performance factor 2.	Add reporting requirements for seasonal energy efficiency ratio 2 and heating seasonal performance factor 2 to §429.67(f)(2)	Required to determine compliance with energy conservation standards.
For three-phase less than 65,000 Btu/h ACUACs and ACUHPs and three-phase less than 65,000 Btu/h VRF, reporting requirements do not include indoor and outdoor unit individual model numbers.	Add reporting requirements for indoor and outdoor unit individual model numbers to §429.67(f)(4)).	Required to determine specific individual models distributed in commerce under each basic model.
For three-phase less than 65,000 Btu/h ACUACs and ACUHPs and three-phase less than 65,000 Btu/h VRF, reporting requirements do not include provisions for submitting a supplemental testing	Add supplemental testing instructions file requirements in PDF form for certification reports for outdoor units with no match to §429.67(f)(3).	Required to ensure that testing conditions are met in the case of enforcement testing.

Current DOE certification reporting requirements	Proposed certification reporting requirements	Attribution
instructions file in pdf form for outdoor units with no match.		
For three-phase less than 65,000 Btu/h ACUACs three-phase less than 65,000 Btu/h VRF, current sampling requirements state to use the Student's t-Distribution Values from "appendix D", whereas appendix A to subpart B of part 429 contains the applicable Student's t-Distribution Values.	Correct §429.67(c)(2)(ii)(A)(2) to specify that the Student's t-Distribution Values in appendix A to subpart B of part 429 should be used.	Removes discrepancy from sampling provisions, improves clarity.
For CWHs, no reporting requirements for electric instantaneous water heaters.	Add reporting requirements for electric instantaneous water heaters to §429.44(c)(2)(vi)-(vii).	Required to determine compliance with proposed energy conservation standards.
For CWHs, no rated input reporting requirement for electric storage water heaters.	Add rated input reporting requirement for electric storage water heaters to §429.44(c)(2)(i).	Required to determine that models exceed the definitional requirement for electric storage water heaters.
For ACIMs, reporting requirements include "maximum energy use" and "maximum condenser water use."	Update reporting requirement terminology to specify "energy use" and "condenser water use" in §429.45(b)(2).	Improved clarity and consistency with definitions.
For ACIMs, no rounding requirements for represented values specified in 10 CFR 429.45	Add rounding requirements in §429.45(b)(3) that specify represented values determined in 10 CFR 429.45 must be rounded consistent with the test procedure rounding instructions upon the compliance date of any amended standards.	Improves representativeness, repeatability, and reproducibility.
For ACIMs, sampling provisions require use of the Student's t-Distribution Values for a 95 percent two-tailed confidence interval from appendix A to subpart B of part 429, whereas appendix A to subpart B of part 429 contains one-tailed Student's t-Distribution Values.	Revise sampling provisions in 10 CFR 429.45(a)(2) to correct this discrepancy and clarify that the Student's t-Distribution Values for a 95 percent one-tailed confidence interval from appendix A to subpart B of part 429.	Removes discrepancy from sampling provisions, improves clarity.
For walk-in refrigeration systems, no reporting requirement for whether the basic model meets the definition of a CO ₂ unit cooler.	Add reporting requirement for whether the basic model meets the definition of a CO ₂ unit cooler to §429.53(b)(2)(iii)(G).	Required to ensure test conditions specified in the test procedure are met.
For walk-in refrigeration systems, the configuration reporting requirement does not include "detachable single-packaged dedicated system" or "attached split system".	Modify current configuration reporting requirement in §429.53(b)(2)(iii)(C) to include "detachable single-packaged dedicated system" and "attached split system".	Required to ensure test conditions specified in the test procedure are met.
For walk-in dedicated condensing systems, no reporting requirement for head pressure controls.	Add reporting requirement in §429.53(b)(3)(ii) for whether the basic model has head pressure controls.	Required to ensure test conditions specified in the test procedure are met.

Current DOE certification reporting requirements	Proposed certification reporting requirements	Attribution
No supplemental testing instructions for walk-in refrigeration systems.	Add requirement in §429.53(b)(4) for submission of supplement test information in PDF format, if necessary to run a valid test, at the time of certification.	Required to ensure test conditions specified in the test procedure are met.
For walk-in refrigeration systems, no reporting requirement for compressor break-in duration used to obtain certified rating.	Add optional reporting requirement to §429.53(b)(3)(ii) for compressor break-in duration used to obtain certified rating, if applicable.	Improves representativeness, repeatability, and reproducibility.
For walk-in doors with anti-sweat heater controls, no reporting requirements for conditions at which the controls activate the ASH wire.	Add reporting requirements to §429.53(b)(2)(i)(H) for conditions (<i>i.e.</i> , temperature, humidity, etc.) at which the controls activate the ASH wire.	Required to ensure applicable enforcement provisions are met in the case of enforcement testing.
For walk-in doors, no reporting requirement for thermal conduction load through the door.	Add reporting requirement for thermal conduction load through the door to §429.53(b)(3)(i)(B).	Required to calculate daily energy consumption.
For walk-in panels, date of manufacturer is not required on a panel's nameplate or label	Require panel manufacture date be added to the nameplate or label in §431.305(a).	Aids enforcement evaluation, as necessary.
For walk-in refrigeration systems, unit coolers designed for use with CO ₂ as a refrigerant are not required to indicate that they are designed for use with CO ₂ on the nameplate.	Require the statement "Only CO ₂ is approved as a refrigerant for this system" to be included on the nameplate for unit coolers designed for use with CO ₂ as a refrigerant.	Required to ensure test conditions specified in the test procedure are met.
For commercial and industrial pumps, reporting requirements are optional for pump efficiency at BEP, constant load pump energy rating, and variable load pump energy rating.	Modify existing provisions in §429.59(b)(2) to require reporting of pump efficiency at BEP, constant load pump energy rating, and variable load pump energy rating.	Standardize public information reported for pumps.
For portable ACs, reporting requirement for duct configuration lists "ability to operate in both configurations" as an option.	Remove "ability to operate in both configurations" as an option in §429.62(b)(2) and add reporting requirement for whether model is distributed in commerce with multiple duct configuration options.	Improved clarity, consistency with instructions in appendix CC and 10 CFR 429.62(a)(5).
For portable ACs, no reporting requirement for full-load seasonally adjusted cooling capacity for variable-speed models.	Add reporting requirements for whether the basic model is variable-speed, and if yes; the full-load seasonally adjusted cooling capacity to §429.62(b)(3).	Required to determine compliance with the energy conservation standards.
For compressors, reporting requirements are included in 10 CFR 429.63, but no annual filing date is specified in 10 CFR 429.12.	Establish an annual filing date of September 1 at 10 CFR 429.12(d), by which manufacturers would be required to submit required reporting information to DOE.	Required to ensure certification information is current on an annual basis, consistent with the requirements for other covered products and equipment.
For DPPPMS, no reporting requirements outlined in 10 CFR 429.65.	Add reporting requirements for DPPPMS to §429.65(e).	Required to verify compliance with proposed energy conservation standards.
For DPPPMS, no rounding requirements outlined in 10 CFR 429.65.	Add rounding requirements for DPPPMS to §429.65(f).	Improves representativeness, repeatability, and reproducibility.

Current DOE certification reporting requirements	Proposed certification reporting requirements	Attribution
For DPPPMS, no annual filing date specified in 10 CFR 429.12.	Establish an annual filing date of September 1 at 10 CFR 429.12(d), by which manufacturers would be required to submit required reporting information to DOE.	Required to ensure certification information is current on an annual basis, consistent with the requirements for other covered products and equipment.
For air cleaners, no reporting requirements outlined in 10 CFR 429.68.	Add reporting requirements for air cleaners to §429.68(b).	Required to verify compliance with recently adopted energy conservation standards.
For air cleaners, no annual filing date specified in 10 CFR 429.12.	Establish an annual filing date of December 1 at 10 CFR 429.12(d), by which manufacturers would be required to submit required reporting information to DOE.	Required to ensure certification information is current on an annual basis, consistent with the requirements for other covered products and equipment.
For SPVUs, reporting requirements do not include provisions for certifying compliance with integrated energy efficiency ratio standards.	Add reporting requirements for certifying compliance with integrated energy efficiency ratio standards to 10 CFR 429.43(b)(2)(v)(B) and (vi)(B).	Required to determine compliance with the energy conservation standards.
For SPVUs with cooling capacities less than 65,000 Btu/h, reporting requirements do not include whether the unit is weatherized or non-weatherized, and if non-weatherized, the airflow rate of outdoor ventilation air which is drawn in and conditioned.	Add reporting requirements to 10 CFR 429.43(b)(2)(v)(B) and (vi)(B) for whether the unit is weatherized or non-weatherized, and if non-weatherized, the airflow rate of outdoor ventilation air which is drawn in and conditioned as determined in accordance with 10 CFR 429.134(x)(3), while the equipment is operating with the same drive kit and motor settings used to determine the certified efficiency rating of the equipment.	Required to determine whether non-weatherized SPVUs with cooling capacities less than 65,000 Btu/h have met the definitional requirements for airflow rate of outdoor ventilation air which is drawn in and conditioned.
For SPVUs, existing supplemental testing instruction requirements do not reflect updated integrated energy efficiency ratio test procedure.	Add supplemental testing instruction file content requirements for when certifying compliance with an integrated energy efficiency ratio standard to 10 CFR 429.43(b)(4)(vi)(B) and (vii)(B).	Required to ensure test conditions specified in the test procedure are met.
For CFLKs, reporting requirements inadvertently omit CFLKs distributed with consumer-replaceable SSL.	Amend reporting requirements in 10 CFR 429.33(b)(2)(ii)(A) to include CFLKs distributed with consumer-replaceable SSL.	Required to determine compliance with the energy conservation standards.

The proposed regulatory amendments summarized in this section, and that are described in greater detail in section III, pertain to certification reporting requirements only. DOE is not proposing amendments to the test procedures or energy conservation standards for CAC/HPs, DWs, RCWs, pool heaters, dehumidifiers, EPSs, battery chargers, CRACs, DX-DOASes, three-phase, less than 65,000 Btu/h ACUACs and ACUHPs, three-phase, less than 65,000 Btu/h VRF, CWHs, ACIMs, WICFs,

commercial and industrial pumps, portable ACs, compressors, DPPPMS, air cleaners, SPVUs, and CFLKs.

III. Discussion

Certification of compliance to DOE is a mechanism that helps manufacturers understand their regulatory obligations for distributing basic models of covered products and equipment that are subject to energy conservation standards.

Certification also helps consumers obtain information about products' energy performance. Certification reports include characteristics of covered products or equipment used to determine which standard applies to a given basic model, and they also help DOE identify models and/or regulated entities that may not comply with the applicable regulations.

For the covered products and equipment addressed in this NOPR, DOE has identified areas in which the certification reporting requirements in 10 CFR part 429 are not consistent with the information required to verify whether the information provided is consistent with the certifier's statement of compliance with current energy conservation standards. DOE is proposing amendments to the certification and reporting provisions for these products and equipment to ensure reporting that is consistent with currently applicable energy conservation standards and to ensure that DOE has the information necessary to determine the appropriate classification of products for the application of standards. In addition to the specific proposals discussed in the following sections, DOE is also proposing minor amendments to ensure consistency among terms used throughout DOE's certification and reporting provisions. Additionally, DOE is proposing labeling requirements for certain covered equipment.

A. Central Air Conditioners and Heat Pumps

DOE is proposing to amend the certification reporting requirements for CAC/HPs. A central air conditioner or central air conditioning heat pump means a product, other than a packaged terminal air conditioner or packaged terminal heat pump, which is powered by single phase electric current, air cooled, rated below 65,000 Btu/h, not contained within the same cabinet as a furnace, the rated capacity of which is above 225,000 Btu/h, and is a heat pump or a cooling unit only. A central air conditioner or central air conditioning heat pump may consist of: a single-package unit; an outdoor unit and one or more indoor units; an indoor unit only; or an outdoor unit with no match. In the case of an indoor unit only or an outdoor unit with no match, the unit must be tested and rated as a system (combination of both an indoor and an outdoor unit). 10 CFR 430.2

On October 25, 2022, DOE published a final rule (“October 2022 CAC/HP Final Rule”) in which DOE amended the test procedure provisions for CAC/HPs. 87 FR 64550. Consistent with that final rule, DOE is proposing amendments to the reporting requirements.

1. Reporting

Under the existing requirements in 10 CFR 429.16, manufacturers of CAC/HPs must report a variety of values and information, including seasonal energy efficiency ratio 2 (“SEER2”) in Btu/W-h, average off mode power consumption, cooling capacity in Btu/h, and heating seasonal performance factor 2 (“HSPF2”) in Btu/W-h. 10 CFR 429.16(e)(2) For a complete list of existing certification reporting requirements, *see* 10 CFR 429.16(e). These requirements provide for certifying compliance with the current standards applicable to CAC/HP equipment

manufactured on or after January 1, 2023. 10 CFR 430.32(c). DOE is proposing to update these requirements and align the reporting requirements with the appendix M1 test procedure and proposing general certification requirements for CAC/HPs. DOE discusses these proposed updates in the following sections.

a. Variable Speed Coil-Only Rating Based on Non-Communicating or Communicating Control

In the October 2022 CAC/HP Final Rule, DOE defined a “communicating variable-speed coil-only central air conditioner or heat pump” as a variable-speed compressor system having a coil-only indoor unit that is installed with a control system that (a) communicates the difference in space temperature and space setpoint temperature (not a setpoint value inferred from on/off thermostat signals) to the control that sets compressor speed; (b) provides a signal to the indoor fan to set fan speed appropriate for compressor staging and air volume rate; and (c) has installation instructions indicating that the required control system meeting both (a) and (b) must be installed. 87 FR 64550, 64560.

DOE defined a “variable-speed non-communicating coil-only central air conditioner or heat pump” as a variable-speed compressor system having a coil-only indoor unit that does not meet the definition of variable-speed communicating coil-only central air conditioner or heat pump. *Id.*

In the October 2022 CAC/HP Final Rule, DOE elaborated that variable-speed coil-only systems that meet the “communicating” definition should be tested like any other variable-speed system, except that the heating full-load air volume rate should be equal to the cooling full-load air volume rate and the intermediate and minimum

cooling and heating air volume rates should all be higher than (1) the rate specified by the installation instructions included with the unit by the manufacturer, and (2) 75 percent of the full-load cooling air volume rate. *Id.*

Because this aspect of the basic model's operating characteristics determines the way it must be tested, manufacturers need to certify whether a variable speed coil-only rating is based on non-communicating or communicating control. Therefore, DOE is proposing to include this requirement in the certification template.

DOE seeks comment on its proposal to require reporting of whether a variable speed coil-only rating is based on non-communicating or communicating control.

b. Air Volume Rate Changing with Outdoor Conditions

In the October 2022 CAC/HP Final Rule, DOE explained that requirements for setting air volume rate in section 3.1.4 of appendix M1 may conflict with instructions to use air volume rates that represent a “normal installation” in section 3.2, particularly for modern blower-coil systems with multiple-speed or variable-speed indoor fans and control systems, which may change air volume rate in response to operating conditions such as outdoor air temperature. 87 FR 64550, 64569. To address this issue, in the October 2022 CAC/HP Final Rule, DOE explicitly stated in step 7 of sections 3.1.4.1.1.a, 3.1.4.2.a, and 3.1.4.3.a of appendix M1 that, for blower-coil systems in which the indoor blower capacity modulation correlates with outdoor dry bulb temperature or sensible-to-total cooling capacity ratio, use an air volume rate that represents a normal operation. *Id.* Also, DOE indicated that to ensure consistency of testing, it may be necessary for manufacturers to certify whether the system varies blower speeds with outdoor air conditions. *Id.*

For these reasons, DOE is proposing that manufacturers include in their certification whether the system varies blower speeds with outdoor air conditions.

DOE seeks comment on its proposal to require reporting of whether a CAC/HP system varies blower speeds with outdoor air conditions.

c. Sampling Corrections

Currently, DOE's sampling provisions for CAC/HPs state that any represented value of power consumption or other measure of consumption of a basic model for which consumers would favor lower values shall be greater than or equal to the higher of the mean of the sample, or the upper 90 percent confidence limit of the true mean ("UCL") divided by 1.05. 10 CFR 429.16(b)(3)(i). Additionally, the sampling provisions state that any represented value of the energy efficiency, cooling capacity, heating capacity or other measure of energy consumption for which consumers would favor higher values shall be less than or equal to the lower of the mean of the sample, or the lower 90 percent confidence limit of the true mean ("LCL") divided by 0.95. 10 CFR 429.16(b)(3)(ii)-(iii). The sampling provisions also state that the UCL and LCL should be calculated using the Student's t-Distribution Values for a 90 percent one-tailed confidence interval with n-1 degrees of freedom from appendix D to subpart B of part 429 ("Appendix D"), where "n" is the number of samples. 10 CFR 429.16(b)(3)(i)-(iii). However, the Appendix containing Student's t-Distribution Values has moved to appendix A to subpart B of part 429 ("Appendix A") and is no longer located at appendix D.⁴). To correct this discrepancy, DOE is proposing to revise 10 CFR 429.16(b)(3)(i)-(iii) to specify that the UCL and LCL should be

⁴ Appendix D now contains the sampling plan for enforcement testing of Uninterruptible Power Supplies

calculated using the Student's t-Distribution Values for a 90 percent one-tailed confidence interval outlined in appendix A.

DOE seeks comment on its proposal to correct the sampling provisions for CAC/HPs to reference appendix A instead of appendix D.

2. Reporting Costs and Impacts

As described in the previous section, DOE proposes in this NOPR to align CAC/HP certification reporting requirements with the current test procedure for CAC/HP in appendix M1, which was most recently amended by the October 2022 CAC/HP Final Rule. The proposed certification requirements in this notice specifically address new provisions in this amended version of the appendix M1 test procedure, use of which was required beginning on April 24, 2023.

DOE has tentatively determined that these proposed amendments to the certification requirements would not impose additional costs for manufacturers because manufacturers of CAC/HPs are already submitting certification reports to DOE and should have readily available the information that DOE is proposing to collect as part of this rulemaking. DOE does not believe the revised reporting requirements will cause any appreciable change in reporting burden or hours as compared to what CAC/HP manufacturers are currently doing today.

DOE requests comment on the certification reporting costs of the amendments proposed for CAC/HPs.

B. Dishwashers

DOE is proposing to amend the certification reporting requirements for DWs, which are cabinet-like appliances which, with the aid of water and detergent, wash,

rinse, and dry (when a drying process is included) dishware, glassware, eating utensils, and most cooking utensils by chemical, mechanical and/or electrical means and discharge to the plumbing drainage system. 10 CFR 430.2. In the DWs test procedure final rule published on January 18, 2023 (“January 2023 DW Final Rule”), DOE amended the existing DWs test procedure at appendix C1 and established a new test procedure at appendix C2, which would be required at the time compliance is required with any amended energy and water conservation standards. 88 FR 3234. Consistent with that final rule, DOE is proposing amendments to the reporting requirements.

1. Reporting

Under the existing requirements in 10 CFR 429.19, manufacturers must report the following public product-specific information: the estimated annual energy use in kilowatt hours (“kWh”) per year (“kWh/yr”), the water consumption in gallons per cycle, and the capacity in number of place settings as specified in ANSI/AHAM DW-1-2010.⁵ 10 CFR 429.19(b)(2). Manufacturers must additionally report the following product-specific information: the presence of a soil sensor (and if present, the number of cycles required to reach calibration); water inlet temperature used for testing in degrees Fahrenheit (“°F”); cycle selected for the energy test and whether that cycle is soil-sensing; the options selected for the energy test; the presence of a built-in water softening system (and if present, the energy use in kWh and the water use in gallons required for each regeneration of the water softening system, the number of regeneration cycles per year, and data and calculations used to derive these values); and an indication of whether Cascade Complete powder was used as the detergent

⁵ American National Standards Institute/Association of Home Appliance Manufacturers DW-1-2010: Household Electric Dishwasher.

formulation in lieu of Cascade with the Grease Fighting Power of Dawn powder. 10 CFR 429.19(b)(3). These requirements are applicable for any DW distributed in the United States on or after May 30, 2013. Additionally, in a test procedure final rule published on July 27, 2023 (“July 2023 DW Final Rule”), DOE updated the detergent formulation reporting requirement at 10 CFR 429.19(b)(3)(vi) as follows: indication of whether Cascade Complete Powder or Cascade with the Grease Fighting Power of Dawn was used as the detergent formulation. 88 FR 48351. For dishwashers other than water re-use dishwashers, the July 2023 DW Final Rule additionally specified that before July 17, 2023, Cascade Complete Powder detergent may be used as the basis for certification in conjunction with the detergent dosing methods specified in either section 2.5.2.1.1 or section 2.5.2.1.2 of appendix C1 as amended in the July 2023 DW Final Rule and Cascade with the Grease Fighting Power of Dawn detergent may be used as the basis for certification only in conjunction with the detergent dosing specified in section 2.5.2.1.1 of appendix C1 as amended in the July 2023 DW Final Rule. Further, for dishwashers other than water re-use dishwashers, the July 2023 DW Final Rule specified that beginning July 17, 2023, Cascade Complete Powder detergent may be used as the basis for certification of newly certified basic models only in conjunction with the detergent dosing method specified in section 2.5.2.1.2 of appendix C1 as amended in the July 2023 DW Final Rule and Cascade with the Grease Fighting Power of Dawn detergent may be used as the basis for certification only in conjunction with the detergent dosing specified in section 2.5.2.1.1 of appendix C1 as amended in the July 2023 DW Final Rule. The July 2023 DW Final Rule additionally specified that manufacturers may maintain existing basic model certifications made prior to July 17, 2023, consistent with the provisions of § 429.19(b)(3)(vi)(A) and (B). *Id.*

DOE is proposing to update the dishwasher certification reporting requirements and align the reporting requirements with the amended test procedure at appendix C1 and the new test procedure at appendix C2. Use of appendix C2 would be required when determining compliance with any future amended energy and water conservation standards. Appendix C2 to subpart B of part 430. Accordingly, the certification reporting requirements that are specific to appendix C2 would be required only at such time as use of appendix C2 is required to demonstrate compliance with any future amended energy and water conservation standards. DOE discusses the proposed updates in the following sections.

a. Update to the AHAM Industry Standard

The current reporting requirements at 10 CFR 429.19(b)(2) reference the industry standard, ANSI/AHAM DW-1-2010 to the capacity of a dishwasher in number of place settings. DOE is proposing to exclude this reference in the dishwasher reporting requirements at 10 CFR 429.19 because this industry standard is now obsolete. Additionally, the reference to the definition of place settings only includes the items in the test load that comprise a single place setting; it does not define the capacity of a dishwasher itself, which is the metric that needs to be reported for dishwashers at 10 CFR 429.19(b)(2). Relatedly, DOE also proposes to remove ANSI/AHAM DW-1-2010 from its list of materials incorporated by reference at 10 CFR 429.4 because this standard would no longer be referenced anywhere in 10 CFR part 429 after the proposed removal of this reference from 10 CFR 429.19.

DOE requests comment on its proposal to remove ANSI/AHAM DW-1-2010 from the referenced industry standard in 10 CFR 429.19(b)(2).

b. Cycle Selected for Energy Test

In the January 2023 DW Final Rule, DOE established a new appendix C2 that specifies, in part, a minimum cleaning index threshold as a condition for a valid test cycle. 88 FR 3234. If the normal cycle at any soil level (*i.e.*, heavy, medium, or light) does not meet the specified cleaning index threshold, the unit is tested at the most energy-intensive cycle that can achieve a cleaning index threshold of 70. 88 FR 3234, 3266. To ensure that the certification template is consistent with the tested cycle requirements specified in appendix C2, DOE proposes to include the following additional confidential reporting requirement at 10 CFR 429.19(b)(3)(iii): the cycle selected for the energy test at the heavy, medium, and light soil loads and whether these cycles are soil-sensing. Further, DOE proposes to include the following additional confidential reporting requirement at 10 CFR 429.19(b)(3)(iv): the options selected for the energy test at the heavy, medium, and light soil loads. These reporting requirements would be required only at such time as use of appendix C2 is required to demonstrate compliance with any future amended energy and water conservation standards.

DOE requests comment on the proposed requirement to confidentially report the cycle selected for the energy test at the heavy, medium, and light soil loads and whether these cycles are soil-sensing as well as the options selected for the energy test at the heavy, medium, and light soil loads when testing according to appendix C2.

c. Cleaning Index

As noted previously, the January 2023 DW Final Rule established a new appendix C2 that specifies a minimum cleaning index threshold as a condition for a valid test cycle. 88 FR 3234. Specifically, the January 2023 DW Final Rule states

that each tested cycle on each individual unit is required to achieve the applicable cleaning index threshold to constitute a valid test cycle. 88 FR 3234, 3265-3266. To ensure that the reported test cycle is a valid test cycle that meets the specified applicable cleaning index threshold, DOE is proposing a confidential reporting requirement for the cleaning index of the sensor heavy response, sensor medium response, and sensor light response test cycles. DOE additionally proposes that the reported cleaning index for each basic model must be the average cleaning index of the individual test units at each soil level. This reporting requirement would be required only at such time as use of appendix C2 is required to demonstrate compliance with any future amended energy and water conservation standards.

DOE requests comment on the proposed requirement to confidentially report the average cleaning index of the sensor heavy response, sensor medium response, and sensor light response test cycles.

d. Water Re-Use System Dishwashers

On November 1, 2013, DOE published a Decision and Order granting Whirlpool a test procedure waiver (“Whirlpool waiver”) for testing specified basic models equipped with a “water use system,” in which water from the final rinse cycle is stored for use in the subsequent cycle, with periodic draining (“drain out”) and cleaning (“clean out”) events. 78 FR 65629, 65629-65630. (Case No. DW-11).⁶

In the January 2023 DW Final Rule, DOE amended appendix C1 to include the requirements from the Whirlpool waiver for testing water re-use system DWs via

⁶ All materials regarding the Whirlpool waiver are available in docket EERE-2013-BT-WAV-0042 at www.regulations.gov.

reference to the industry standard, AHAM DW-1-2020, with some modifications to the equations in sections 5.6.1.3, 5.6.1.4, 5.6.2.3, and 5.6.2.4 of AHAM DW-1-2020. DOE also adopted these requirements in the new appendix C2. 88 FR 3234, 3249.

Accordingly, DOE proposes to amend the reporting requirements at 10 CFR 429.19(b)(3) to include reporting of energy and water use associated with drain out and clean out events, consistent with the information required to be reported by Whirlpool as part of the waiver. These reported values would be used in equations to account for the extra water and energy associated with water re-use systems. Specifically, DOE is proposing that the additional machine electrical energy consumption required for a drain out event and clean out event—expressed in kWh—and the additional water consumption required for drain out and clean out events during a drain out cycle—expressed in gallons per cycle (“gal/cycle”)—be reported confidentially.

DOE seeks comment on its proposal to require that additional machine electrical energy consumption required for a drain out event and clean out event—expressed in kWh—and the additional water consumption required for drain out and clean out events during a drain out cycle—expressed in gal/cycle—be reported confidentially.

e. Dishwashers with Built-In Reservoirs

DOE published a Decision and Order on December 9, 2020 granting CNA International Inc. (“CNA”) a test procedure waiver (“CNA waiver”) for a basic model of a compact DW that does not connect to a water supply line and instead has a built-

in reservoir that must be manually filled with water. 85 FR 79171, 79171 and 79173 (Case No. 2020-008).⁷

In the January 2023 DW Final Rule, DOE amended appendix C1 to include the requirements from the CNA waiver, which was specific to a compact DW basic model, to be applicable to a DW of any capacity with a manually filled built-in water reservoir. DOE also adopted these requirements in the new appendix C2. 88 FR 3234, 3241.

Accordingly, DOE proposes to amend the reporting requirements at 10 CFR 429.19(b)(3) to include reporting of the reservoir capacity in gallons, prewash and main wash fill water volume in gallons (if testing is performed using appendix C1), and the total water consumption in gallons per cycle for DWs with built-in reservoirs. DOE's proposal to report the prewash and main wash fill water volumes is only applicable to appendix C1 because these water volumes are used to determine detergent dosage in appendix C1, while the detergent dosage in appendix C2 is dependent on the number of place settings.

DOE seeks comment on its proposal to require reporting of reservoir capacity in gallons, prewash and main wash fill water volume in gallons (if testing is performed using appendix C1), and the total water consumption in gallons per cycle for DWs with built-in reservoirs.

⁷ All materials regarding the CNA waiver are available in docket EERE-2020-BT-WAV-0024 at www.regulations.gov.

f. Rounding Requirements

DOE proposes to specify at new section 10 CFR 429.19(c) that the represented value of estimated annual energy use must be rounded to the nearest kWh/yr and the represented value of water consumption must be rounded to one decimal place, *i.e.*, the nearest 0.1 gallon per cycle. These rounding requirements are consistent with the existing rounding requirements for DWs specified at 10 CFR 430.23(c)(2) and 10 CFR 430.23(c)(3), respectively.

DOE requests comment on the proposed rounding requirements for DWs.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to align the DW certification reporting requirements with the amended test procedure at appendix C1, use of which is required beginning July 17, 2023, and with the newly adopted test procedure at appendix C2, use of which would be required at such time as compliance is required with any amended energy conservation standards based on appendix C2.

For dishwashers, manufacturers currently report the following: (1) the estimated annual energy use in kWh/yr; (2) the water consumption in gallons per cycle; (3) the capacity in number of place settings as specified in ANSI/AHAM DW-1-2010; (4) the presence of a soil sensor, and if present, the number of cycles required to reach calibration; (5) the water inlet temperature used for testing in °F; (6) the cycle selected for the energy test and whether that cycle is soil-sensing; (7) the options selected for the energy test; and (8) the presence of a built-in water softening system, and if present, the energy use in kWh and the water use in gallons required for each regeneration of the water softening system, the number of regeneration cycles per

year, and data and calculations used to derive these values. 10 CFR 429.19 (b)(2)-(3). Manufacturers also report whether Cascade Complete powder was used as the detergent formulation in lieu of Cascade with the Grease Fighting Power of Dawn powder. 10 CFR 429.19(b)(3)(vi). Beginning August 28, 2023, the effective date of the July 2023 DW Final Rule, the reporting requirement pertaining to the detergent formulation would be updated such that manufacturers would be required to report whether Cascade Complete Powder or Cascade with the Grease Fighting Power of Dawn was used as the detergent formulation. 88 FR 48351, 48357. Additionally, when certifying dishwashers, other than water re-use dishwashers, according to appendix C1, the following requirements would be applicable: (A) Before July 17, 2023, Cascade Complete Powder detergent may be used as the basis for certification in conjunction with the detergent dosing methods specified in either section 2.5.2.1.1 or section 2.5.2.1.2 of appendix C1. Cascade with the Grease Fighting Power of Dawn detergent may be used as the basis for certification only in conjunction with the detergent dosing specified in section 2.5.2.1.1 of appendix C1. (B) Beginning July 17, 2023, Cascade Complete Powder detergent may be used as the basis for certification of newly certified basic models only in conjunction with the detergent dosing method specified in section 2.5.2.1.2 of appendix C1. Cascade with the Grease Fighting Power of Dawn detergent may be used as the basis for certification only in conjunction with the detergent dosing specified in section 2.5.2.1.1 of appendix C1. Manufacturers may maintain existing basic model certifications made prior to July 17, 2023, consistent with the provisions of paragraph 10 CFR 429.19(b)(3)(vi)(A). *Id.*

Under the proposed amendments, if adopted, manufacturers would additionally report the following: (1) the cycles selected for the sensor heavy

response, sensor medium response, and sensor light response and whether these cycles are soil-sensing if testing is performed using appendix C2; (2) the options selected for the sensor heavy response, sensor medium response, and sensor light response if testing is performed using appendix C2; (3) the average cleaning index for the sensor heavy response, sensor medium response, and sensor light response cycles if testing is performed using appendix C2; (4) whether the product is a water re-use system dishwasher and if so, the energy use in kWh and water use in gallons required for a drain out event, the energy use in kWh and water use in gallons required for a clean out event, the number of drain out events per year, the number of clean out events per year, the water fill volume to calculate detergent dosage in gallons, and data and calculations used to derive these values, as applicable; and (5) the presence of a built-in reservoir and if present, the manufacturer-stated reservoir capacity in gallons, the prewash fill water volume in gallons and the main wash fill water volume in gallons if testing is performed using appendix C1, and the reservoir water consumption in gallons per cycle. DOE is additionally proposing to add rounding requirements for estimated annual energy use and water consumption and remove the ANSI/AHAM DW-1-2010 industry standard that is included as a reference from 10 CFR 429.4.

DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers because manufacturers of DWs are already submitting certification reports to DOE and should have readily available the information that DOE is proposing to collect as part of this rulemaking. Additionally, any requirements stemming from the updates to the test procedure were accounted for in the January 2023 Final Rule. DOE does not believe the revised reporting

requirements will cause any appreciable change in reporting burden or hours as compared to what DW manufacturers are currently doing today.

DOE requests comment on the certification reporting costs of the amendments proposed for DWs.

C. Residential Clothes Washers

DOE is proposing to amend the reporting requirements for RCWs, which are a consumer product designed to clean clothes, utilizing a water solution of soap and/or detergent and mechanical agitation or other movement, that must be one of the following classes: automatic clothes washers, semi-automatic clothes washers, and other clothes washers. 10 CFR 430.2. In the RCWs test procedure final rule published on June 1, 2022 (“June 2022 RCW Final Rule”), DOE amended the existing RCWs test procedure at appendix J2, established a new test procedure at appendix J, which would be required at the time compliance is required with any amended energy and water conservation standards, and removed appendix J1. 87 FR 33316. Consistent with the June 2022 RCW Final Rule, DOE is proposing amendments to the reporting requirements.

1. Reporting

Under the existing requirements in 10 CFR 429.20(b)(2)(i), manufacturers of RCWs tested in accordance with the test procedure at appendix J1 must report: the modified energy factor (“MEF”), the capacity, the corrected moisture content (“RMC”), and the integrated water factor (“IWF”). Under the existing requirements in 10 CFR 429.20(b)(2)(ii), manufacturers of RCWs tested in accordance with the test procedure at appendix J2 must report: the integrated modified energy factor

(“IMEF”), the IWF, the capacity, the RMC, and the type of loading (top-loading or front-loading). Under the existing requirements in 10 CFR 429.20(b)(3), all manufacturers of RCWs must also report a list of cycle selections comprising the complete energy test cycle.

DOE is proposing to update these requirements and to specify new reporting requirements that would apply to the new appendix J test procedure and that would be required for certifying compliance only at such time as use of appendix J is required. DOE discusses these proposed updates in the following sections.

a. Removing Appendix J1

Appendix J1 was removed from the CFR as part of the June 2022 RCW Final Rule. 87 FR 33316, 33365. Therefore, the provisions in 10 CFR 429.20(b)(2)(i), which specify reporting requirements for RCWs tested in accordance with appendix J1, are obsolete. For these reasons, DOE proposes to remove these reporting requirements.

DOE requests comment on its proposal to remove reporting requirements applicable to appendix J1 from 10 CFR 429.20(b)(2)(i).

b. Clothes Container Capacity

DOE has established separate product classes for RCWs based on clothes container capacity, among other characteristics. 10 CFR 430.32(g)(4) The current test procedure uses the term “clothes container capacity” to refer to the measured capacity (*see* section 3.1 of appendix J2), whereas the current reporting requirements at 10 CFR 429.20(b)(2) use the term “capacity.” To provide greater consistency in

terminology between the test procedure and the reporting requirements, DOE proposes to update the reporting requirement terminology from “capacity” to “clothes container capacity.”

DOE requests comment on its proposal to update reporting requirement terminology to specify “clothes container capacity for RCWs.

c. Test Cloth Lot Number

In the June 2022 RCW Final Rule, DOE implemented new language in 10 CFR 429.134(c) that provides additional product-specific enforcement provisions for clothes washers to accommodate differences in RMC values that may result from DOE using a different test cloth lot than was used by the manufacturer for testing and certifying the basic model. 87 FR 33316, 33369–33371. To implement this new enforcement provision, DOE proposes to require reporting the test cloth lot number used during certification testing. DOE also proposes that the reported test cloth lot number would not be public.

DOE requests comment on its proposal to require the reporting of the test cloth lot number for RCWs for the purpose of implementing the enforcement provisions in 10 CFR 429.134(c), as well as its proposal that the reported test cloth lot number would not be public.

d. Specifying Requirements for Appendix J

The new appendix J test procedure establishes new energy and water efficiency metrics for RCWs. Use of appendix J would be required at such time as compliance is required with any amended energy conservation standards based on

these new metrics as measured using appendix J. 87 FR 33316. On March 3, 2023, DOE proposed amended standards for clothes washers based on the new metrics as measured using appendix J. 88 FR 13520. Consistent with these new metrics, DOE proposes to specify certification requirements at 10 CFR 429.20(b)(2)(i) corresponding to the use of appendix J, as detailed in the following sections. These reporting requirements would be required only at such time as use of appendix J is required to demonstrate compliance with standards based on the new appendix J metrics.

Energy Efficiency Ratio and Water Efficiency Ratio

Appendix J defines new metrics for representing clothes washer efficiency: energy efficiency ratio (“EER”)⁸ and water efficiency ratio (“WER”).⁹

DOE proposes to require including EER and WER as public information in a certification report for RCWs tested in accordance with appendix J.

In the June 2022 RCW Final Rule, DOE established rounding requirements for EER and WER in 10 CFR 430.23(j)(2)(ii) and (j)(4)(ii), respectively. 87 FR 33316, 33381. These requirements specify rounding EER to the nearest 0.01 lb/kWh/cycle and rounding WER to the nearest 0.01 gal/kWh/cycle. DOE proposes to specify these same rounding requirements for EER and WER at 10 CFR 430.29(c).

⁸ EER is defined as the weighted-average load size in pounds (“lbs”) divided by the sum of (1) the per-cycle machine energy, (2) the per-cycle water heating energy, (3) the per-cycle drying energy, and (4) the per-cycle standby and off mode energy consumption, in kilowatt-hours (“kWh”).

⁹ WER is defined as the weighted-average load size in lbs divided by the total weighted per-cycle water consumption for all wash cycles in gallons (“gal”).

DOE requests comment on the proposed RCW reporting requirements for EER and WER, including the proposed rounding requirements.

Type of Control System

The existing RCW product classes are applicable to automatic clothes washers.¹⁰ Whereas performance-based standards are currently applicable for all classes of automatic RCWs, DOE has not established performance-based standards for semi-automatic RCWs. On March 3, 2023, DOE published an energy conservation standards NOPR that includes a proposal to re-establish a separate product class and separate performance-based energy conservation standards for semi-automatic RCWs.¹¹ 88 FR 13520. To distinguish basic models as either automatic or semi-automatic for the purpose of determining whether the current performance-based standards apply, as well as which energy conservation standards would apply if DOE were to finalize its proposal to establish performance-based energy conservation standards for semi-automatic RCWs, DOE proposes to require reporting the type of control system (automatic or semi-automatic) as public information to be included in a certification report for RCWs tested in accordance with appendix J.

DOE requests comment on its proposal to require reporting the type of control system (automatic or semi-automatic) for RCWs.

¹⁰ DOE defines “automatic clothes washer” as a class of clothes washer that has a control system that is capable of scheduling a preselected combination of operations, such as regulation of water temperature, regulation of the water fill level, and performance of wash, rinse, drain, and spin functions without the need for user intervention subsequent to the initiation of machine operation. Some models may require user intervention to initiate these different segments of the cycle after the machine has begun operation, but they do not require the user to intervene to regulate the water temperature by adjusting the external water faucet valves. 10 CFR 430.2.

¹¹ DOE defines “semi-automatic clothes washer” as a class of clothes washer that is the same as an automatic clothes washer except that user intervention is required to regulate the water temperature by adjusting the external water faucet valves. 10 CFR 430.2.

Other Requirements

For RCWs tested in accordance with appendix J, DOE also proposes to establish public reporting requirements for RMC, clothes container capacity, and type of loading (top-loading or front-loading), consistent with the current reporting requirements specified at 10 CFR 429.20(b)(2)(ii) for RCWs tested in accordance with appendix J2. DOE notes that the current requirement at 10 CFR 429.20(b)(3) to report a list of all cycle selections comprising the complete energy test cycle for each basic model applies to all RCWs and would therefore also apply to any RCW tested in accordance with appendix J. Similarly, the proposed requirement to report test cloth lot number would also apply to RCWs tested in accordance with appendix J. These reporting requirements would be required only at such time as use of appendix J is required to demonstrate compliance with standards based on the new appendix J metrics.

DOE requests comment on its proposal to require reporting of RMC, clothes container capacity, and type of loading (top-loading or front-loading) for RCWs tested in accordance with appendix J.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to align RCW certification reporting requirements with the energy conservation requirements that would be applicable to RCWs tested in accordance with appendix J.

Currently, manufacturers report IMEF, IWF, capacity, RMC, loading type, and cycle selections. Manufacturers would additionally report test cloth lot number if the proposed amendments were adopted. For RCWs manufactured after the

compliance date of any future energy conservation standards based on use of appendix J, manufacturers would be required to report EER, WER, capacity, RMC, control system type, loading type, cycle selections, and test cloth lot number, if the proposed amendments are adopted.

DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers because manufacturers of RCWs are already submitting certification reports to DOE and should have readily available the information that DOE is proposing to collect as part of this rulemaking. DOE does not believe the revised reporting requirements will cause any appreciable change in reporting burden or hours as compared to what RCW manufacturers are currently doing today as the proposed amendments are replacement metrics or information that should be readily available.

DOE requests comment on the certification reporting costs of the amendments proposed for RCWs.

D. Pool Heaters

DOE is proposing to amend the reporting requirements for consumer pool heaters. DOE defines pool heaters as an appliance designed for heating non-potable water contained at atmospheric pressure, including heating water in swimming pools, spas, hot tubs, and similar applications. 10 CFR 430.2. In the final rule published on May 30, 2023 (“May 2023 Pool Heaters Final Rule”), DOE amended the energy conservation standards for consumer pool heaters. 88 FR 34624. While the current standards only apply to gas-fired pool heaters, the new and amended standards apply to both gas-fired pool heaters and electric pool heaters (excluding electric spa

heaters)¹² and use an updated efficiency metric. *Id.* at 88 FR 34704. Consistent with the May 2023 Pool Heaters Final Rule, DOE is proposing amendments to the reporting requirements for consumer pool heaters.

1. Reporting

Under the existing requirements in 10 CFR 429.24, manufacturers of gas-fired pool heaters must report: thermal efficiency in percent and input capacity in Btu/h. 10 CFR 429.24(b)(1)-(2). These requirements provide for certifying compliance with the April 16, 2013 thermal efficiency standards. The amended standards are based on a different metric: integrated thermal efficiency. (*See* 88 FR 34624, 34625) DOE is proposing to update these certification requirements and align them with the energy conservation standards outlined in the May 2023 Pool Heaters Final Rule. DOE is additionally proposing general certification requirements for consumer pool heaters. DOE discusses these proposed updates in the following paragraphs.

The current standards for consumer pool heaters at 10 CFR 430.32(k) provide only minimum thermal efficiency (“TE”) requirements for gas-fired pool heaters, which does not include standby mode and off mode energy consumption. While the TE metric has historically been used to rate pool heaters, the current test procedure at appendix P to subpart B of 10 CFR part 430 (“appendix P”) includes provisions to determine the new integrated thermal efficiency (“TE_i”) metric, which includes standby mode and off mode energy consumption as required by EPCA. Hence, the

¹² “Electric pool heater” means a pool heater other than an electric spa heater that uses electricity as its primary energy source. An “electric spa heater” means a pool heater that (1) uses electricity as its primary energy source; (2) has an output capacity of 11 kW or less; and (3) is designed to be installed within a portable electric spa. 88 FR 34624, 34703. DOE did not establish standards for electric spa heaters in the May 2023 Pool Heaters Final Rule, so the certification requirements proposed in this NOPR pertain only to electric pool heaters.

May 2023 Pool Heaters Final Rule established new and amended standards for gas-fired pool heaters and electric pool heaters in terms of TE_I. (88 FR 34624, 34625) In the May 2023 Pool Heaters Final Rule, DOE stated that it would consider requirements for reporting and certifying TE_I in lieu of TE in a separate rulemaking. 88 FR 34624, 34636. DOE stated that it would also consider requirements for reporting and certifying active electrical power¹³ along with the representative value for TE_I in a separate rulemaking. *Id.*

In the pool heaters energy conservation standards NOPR rulemaking (“April 2022 Pool Heaters NOPR”), DOE addressed comments from Air-Conditioning, Heating, and Refrigeration Institute (“AHRI”) regarding the level of precision required for representations of TE_I. 87 FR 22640, 22652 (Apr. 15, 2022). AHRI suggested that, for products where the efficiency ratings are less than 100 percent, a change of one or two points may make a difference; however, for products such as heat pump pool heaters with efficiency ratings that can exceed 300 percent, a difference of one or two points is inconsequential. *Id.* DOE stated that it would consider rounding requirements for consumer pool heaters in a separate rulemaking addressing certification reports. *Id.*

The April 2022 Pool Heaters NOPR sought comment on changes to certification and enforcement requirements. *Id.* DOE received comments from Rheem Manufacturing Company (“Rheem”) regarding certification provisions for consumer pool heaters. Rheem recommended that DOE update the certification provisions at 10 CFR 429.24 to require certification of TE_I and either input capacity

¹³ “Active electrical power” means the maximum electrical power consumption in active mode for an electric pool heater.

or active electrical power as necessary. (Rheem, Docket No. EERE-2021-BT-STD-0020, No. 19 at p. 2) Rheem also recommended that DOE evaluate adding certification provisions—similar to the requirements for consumer water heaters—which allow for the propane gas version of a basic model to be rated using the natural gas version if the propane gas input rate is within 10 percent of the natural gas input rate. (Rheem, Docket No. EERE-2021-BT-STD-0020, No. 19 at p. 10)

In response to Rheem’s request to use representations of natural gas basic models for propane basic models, DOE notes that the water heater certification provisions referenced by the commenter are specifically for alternative efficiency determination methods (*see* 10 CFR 429.70(g)(1)). At this time, manufacturers of consumer pool heaters are not authorized to use alternative efficiency determination methods for representations pertaining to consumer pool heaters (*see* 10 CFR 429.70(a)), and the May 2023 Pool Heaters Final Rule did not establish this allowance. (88 FR 34624) Hence, DOE is not proposing special certification requirements for propane gas-fired pool heaters.

For consumer pool heaters, DOE proposes to clarify provisions for certifying input capacity, establish provisions for certifying active electrical power, and establish certification requirements for TE_i (including rounding requirements). DOE has tentatively determined that certification of input capacity and active electrical power is necessary because these values are used to determine the TE_i standard that applies to a pool heater.

DOE proposes to clarify that representations of input capacity for gas-fired pool heaters must be made based on the average of the input capacities measured for each tested unit of the basic model, and rounded to the nearest 1,000 Btu/h.

There are currently no certification requirements for electric pool heaters. DOE is proposing to establish requirements for active electrical power similar to those for input capacity, because these two values are analogous to each other for electric pool heaters and gas-fired pool heaters, respectively.

The May 2023 Pool Heaters Final Rule will require compliance with standards using the TE_I metric; hence, DOE is also proposing to require certification of this value. The represented value for TE_I would be rounded to the nearest tenth of one percent for gas-fired pool heaters. However, in consideration of the comments from AHRI indicating that the level of precision does not need to be so stringent for electric pool heaters, DOE is proposing that the value for TE_I would be rounded to the nearest 1 percent for electric pool heaters. Until compliance with new TE_I standards is mandatory, manufacturers of gas-fired pool heaters must still ensure that these products comply with the current TE standards at 10 CFR 430.32(k). Therefore, DOE is maintaining the requirement for certifying TE of gas-fired pool heaters for products that must comply with TE standards. Reporting of TE_I would become mandatory upon the compliance date of the energy conservation standards adopted in the May 2023 Pool Heaters Final Rule, May 30, 2028, at which time manufacturers would no longer be required to report TE.

DOE seeks comment on its proposal to require the reporting of input capacity, active electrical power, and integrated thermal efficiency. DOE also seeks comment on the proposed rounding requirements.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to align pool heater certification reporting requirements with the energy conservation requirements that would be applicable to pool heaters, as finalized in the May 2023 Pool Heaters Final Rule.

For gas-fired pool heaters, manufacturers currently report TE as a percentage and input capacity in Btu/h. As a result of the amended standards, manufacturers of gas-fired pool heaters would be required to report TE_I as a percentage in lieu of TE when certifying compliance with the revised standards. For electric pool heaters, manufacturers are not currently required to submit certification reports as there are no applicable standards at this time. As a result of the amended standards, manufacturers of electric pool heaters would be required to report TE_I as a percentage and active electrical power in Btu/h. 88 FR 34624, 34704.

DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers of gas-fired pool heaters because manufacturers of gas-fired pool heaters are already submitting certification reports to DOE and should have the information that DOE is proposing to collect as part of this rulemaking readily available. DOE does not believe the revised reporting requirements will cause any appreciable increase in any manufacturer's reporting burden or hours compared to certifying under current gas-fired pool heater requirements. For electric pool heaters, manufacturers are not currently required to submit certification reports to DOE because electric pool heaters are not currently subject to any applicable energy conservation standards. Any manufacturer of electric pool heaters would be required to submit certification reports for electric pool heaters upon the compliance date of the amended energy conservation standards, May 30,

2028. 88 FR 34624, 34704. Costs associated with the proposed updates to reporting requirements are discussed in section IV.C of this document.

DOE requests comment on the certification reporting costs of the amendments proposed for pool heaters.

E. Dehumidifiers

DOE is proposing to amend the reporting requirements for dehumidifiers, which DOE defines as products—other than portable air conditioners, room air conditioners, or packaged terminal air conditioners—that are self-contained, electrically operated, and mechanically encased assemblies consisting of (1) a refrigerated surface (evaporator) that condenses moisture from the atmosphere; (2) a refrigerating system, including an electric motor; (3) an air-circulating fan; and (4) a means for collecting or disposing of the condensate. 10 CFR 430.2. Use of appendix X1 to subpart B of 10 CFR part 430 is currently required for any representations of energy use or efficiency of portable and whole-home dehumidifiers, including demonstrating compliance with the currently applicable energy conservation standards. Consequently, appendix X to subpart B of 10 CFR part 430 is obsolete for dehumidifiers manufactured on or after June 13, 2019. Therefore, DOE is proposing amendments to the remove the outdated appendix X reporting requirements, consistent with the proposed removal of appendix X in the test procedure NOPR published on June 9, 2022 (“June 2022 Dehumidifiers NOPR”). 87 FR 35286, 35305.

1. Reporting

Under the existing requirements in 10 CFR 429.36, manufacturers must report: energy factor in liters per kilowatt hour (“liters/kWh”) and capacity in pints per day when certifying compliance with dehumidifiers tested in accordance with appendix X.

10 CFR 429.36(b)(2)(i). However, use of appendix X is no longer permitted for compliance because use of appendix X1 to Subpart B of Part 430 (“appendix X1”) is required to demonstrate compliance with standards for products manufactured on or after June 13, 2019, and the June 2022 Dehumidifiers NOPR proposed the removal of appendix X. 87 FR 35286, 35305. DOE is proposing to remove the outdated appendix X certification requirements consistent with the proposed removal of appendix X in the June 2022 Dehumidifiers NOPR.

DOE seeks comment on its proposal to remove the outdated appendix X certification requirements.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to align dehumidifier certification reporting requirements with the appendix X1 test procedure requirements, use of which was required beginning on June 13, 2019, by removing the appendix X requirements applicable to dehumidifiers manufactured prior to June 13, 2019.

DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers because the only proposed amendments are the removal of outdated requirements. DOE is not proposing any amendments to the reporting requirements associated with appendix X1 and is proposing to remove certification requirements associated with an prior Appendix. Therefore, DOE does not believe the revised reporting requirements will cause any appreciable change in reporting burden or hours compared to certifying under current dehumidifier requirements.

DOE requests comment on the certification reporting costs of the amendments proposed for dehumidifiers.

F. External Power Supplies

DOE is proposing to amend the reporting requirements for EPSs. DOE defines an EPS as an external power supply circuit that is used to convert household electric current into direct current or lower-voltage AC current to operate a consumer product. 10 CFR 430.2. In the test procedure final rule published on August 19, 2022, DOE amended the appendix Z test procedure for EPSs. 87 FR 51200. Consistent with that final rule, DOE is proposing amendments to the reporting requirements.

1. Reporting

Under the existing requirements in 10 CFR 429.37(b)(2), manufacturers must report the following based on the external power supply type:

For external power supplies, manufacturers currently report the average active mode efficiency as a percentage, no-load mode power consumption in watts, nameplate output power in watts, and, if missing from the nameplate, the output current in amperes of the basic model or the output current in amperes of the highest- and lowest-voltage models within the external power supply design family.

For switch-selectable single-voltage external power supplies, manufacturers currently report the average active mode efficiency as a percentage, no-load mode power consumption in watts using the lowest and highest selectable output voltages, nameplate output power in watts, and, if missing from the nameplate, the output current in amperes.

For adaptive single-voltage external power supplies, manufacturers currently report the average active-mode efficiency as a percentage at the highest and lowest nameplate output voltages, no-load mode power consumption in watts, nameplate output power in watts at the lowest and highest nameplate output voltages, and, if missing from the nameplate, the output current in amperes at the lowest and highest nameplate output voltages.

For external power supplies that are exempt from no-load mode requirements, manufacturers currently report a statement that the product is designed to be connected to a security or life safety alarm or surveillance system component, the average active-mode efficiency as a percentage, the nameplate output power in watts, and if missing from the nameplate, the certification report must also include the output current in amperes of the basic model or the output current in amperes of the lowest- and highest-voltage models within the external power supply design family. Manufacturers of these exempt external power supplies are additionally required to report, if the aggregate total number of exempt EPSs sold as spare and service parts exceeds 1,000 units across all models: the importer or domestic manufacturer's name and address, the brand name, and the number of units sold during the most recent 12-calendar-month period ending on July 31. 10 CFR 429.37(b)(3) and 10 CFR 429.37(c).

These requirements provide for certifying compliance with the energy conservation standards applicable to EPSs manufactured on or after February 10, 2014. DOE is proposing to align the reporting requirements with the amended appendix Z test procedure, use of which was required beginning September 19, 2022,

and proposing general certification requirements for EPSs. DOE discusses these proposed updates in the sections as follows.

a. Output Cord Specifications

DOE's amended EPS test procedure requires that EPSs be tested with the output cord they are shipped with. For EPSs not shipped with an output cord, the EPS must be tested with a manufacturer's recommended output cord. For EPSs not shipped with an output cord and for which the manufacturer does not recommend an output cord, the amendments specify that the EPS must be tested with a 3-foot-long output cord with a conductor thickness that is minimally sufficient to carry the maximum required current. *See* section 4(g) of appendix Z to subpart B of 10 CFR part 430.

To better align the reporting requirements with the test procedure, DOE is proposing to add a reporting requirement of the included output cord specifications (gauge and length); for EPSs not shipped with an output cord, the specifications (gauge and length) for the manufacturer's recommended output cord would be provided. For EPSs not shipped with an output cord and for which the manufacturer does not recommend an output cord, the gauge of the 3-foot-long output cord will be provided.

DOE seeks comment on its proposal to require the reporting of output cord specifications for EPSs.

b. Output Voltage

In DOE's current EPS test procedure and energy conservation standards, determining factors for EPS type and product class are the nature of the output voltage and its measured value. Output voltage type —(*i.e.* AC, DC, multiple voltage and/or adaptive) determines the applicable portion of the test procedure and the template that

must be used for certification purposes. The measured value of the voltage determines whether the EPS falls within the basic or low voltage product class. To better align the reporting requirements with the test procedure and energy conservation standards for EPSs, DOE is proposing to add a reporting requirement for the measured output voltage for each port.

DOE seeks comment on its proposal to require the reporting of measured output voltage for EPSs for each port.

c. Additional Date Reporting Requirements for Exempt EPSs

To further clarify the time period during which the exempt EPSs were sold, DOE is proposing to further require the manufacturer to report the applicable timeframe of which the number of exempt EPSs were sold.

DOE seeks comment on its proposal to require manufacturers of exempt EPSs to report the year for which the sales number being reported represents.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to align EPS certification reporting requirements with the revised appendix Z test procedure requirements, use of which was required beginning September 19, 2022.

For switch-selectable single-voltage external power supplies, manufacturers currently report the average active mode efficiency as a percentage, no-load mode power consumption in watts using the lowest and highest selectable output voltages, nameplate output power in watts, and, if missing from the nameplate, the output

current in amperes, and would additionally report included or recommended output cord specifications and the measured output voltage at the lowest and highest selectable output voltages if the proposed amendments are adopted.

For adaptive single-voltage external power supplies, manufacturers currently report the average active-mode efficiency as a percentage at the highest and lowest nameplate output voltages, no-load mode power consumption in watts, nameplate output power in watts at the lowest and highest nameplate output voltages, and, if missing from the nameplate, the output current in amperes at the lowest and highest nameplate output voltages, and would additionally report included or recommended output cord specifications and the measured output voltage at the lowest and highest nameplate output voltages if the proposed amendments are adopted.

For external power supplies that are exempt from no-load mode requirements, manufacturers currently report a statement that the product is designed to be connected to a security or life safety alarm or surveillance system component, the average active-mode efficiency as a percentage, the nameplate output power in watts, and if missing from the nameplate, the certification report must also include the output current in amperes of the basic model or the output current in amperes of the lowest- and highest-voltage models within the external power supply design family, and would additionally report included or recommended output cord specifications and the measured output voltage or the measured output voltage of the lowest and highest voltage models within the external power supply design family, and the timeframe of which these exempt EPSs were sold, if the proposed amendments are adopted.

For all other external power supplies, manufacturers currently report the average active mode efficiency as a percentage, no-load mode power consumption in watts, nameplate output power in watts, and, if missing from the nameplate, the output current in amperes of the basic model or the output current in amperes of the highest- and lowest-voltage models within the external power supply design family, and would additionally report included or recommended output cord specifications and the measured output voltage or the measured output voltage of the lower and highest voltage models within the external power supply design family if the proposed amendments are adopted.

DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers because manufacturers of EPSs are already submitting certification reports to DOE and should have readily available the information that DOE is proposing to collect as part of this rulemaking. DOE does not believe the revised reporting requirements will cause any appreciable change in reporting burden or hours as compared to what EPS manufacturers are currently doing today.

DOE requests comment on the certification reporting costs of the amendments proposed for EPSs.

G. Battery Chargers

DOE is proposing to amend the reporting requirements for battery chargers, which DOE defines as devices that charge batteries for consumer products, including battery chargers embedded in other consumer products. 10 CFR 430.2. In the test procedure final rule published on September 8, 2022 (“September 2022 Battery

Charger Final Rule”), DOE amended the scope of coverage and test procedure provisions for battery chargers. 87 FR 55090. On March 15, 2023, DOE published an energy conservation standards NOPR for battery chargers that was developed based on the amended test procedure. 88 FR 16112. Consistent with the test procedure final rule and the energy conservation standards NOPR, DOE is proposing to reorganize current reporting requirements and add new reporting requirements that would become mandatory upon the compliance date of any future amended energy conservation standards for battery chargers.

1. Reporting

Under the existing requirements in 10 CFR 429.39, manufacturers must report: (1) the nameplate battery voltage of the test battery in volts, the nameplate battery charge capacity of the test battery in ampere-hours, and the nameplate battery energy capacity of the test battery in watt-hours; and (2) the represented values for the maintenance mode power (P_m), standby mode power (P_{sb}), off mode power (P_{off}), battery discharge energy (E_{batt}), 24-hour energy consumption (E_{24}), duration of the charge and maintenance mode test (t_{cd}), and unit energy consumption (UEC); and (3) the manufacturer and model of the test battery, and the manufacturer and model, when applicable, of the external power supply. 10 CFR 429.39. These requirements provide for certifying compliance with the energy conservation standards applicable to battery chargers manufactured on or after June 13, 2018. DOE is proposing to reorganize these requirements and align the reporting requirements with the amended test procedure at appendix Y to subpart B of part 430 (“appendix Y”), use of which was required beginning on March 7, 2023. DOE is also proposing new reporting requirements to the certification requirements for battery chargers tested under

appendix Y1 to subpart B of part 430 (“appendix Y1”), use of which would be required upon the compliance date of any future amended energy conservation standards for battery chargers. DOE discusses these proposed appendix Y1 updates in the sections as follows.

a. Reporting Requirements for Battery Chargers Tested Under Appendix Y1

In the September 2022 Battery Charger Final Rule, DOE established a new appendix Y1 for the multi-metric testing approach for battery chargers. Under the new multi-metric testing approach, instead of computing and reporting the UEC value, which captures the performance of a battery charger in all modes of operation into a single metric, manufacturers are required to calculate and report the battery charger energy and power values for each mode of operation separately. These modes consist of active charge mode, standby mode, and off mode. 87 FR 55090, 55100-55105.

DOE is proposing to update the battery charger reporting requirements in 10 CFR 429.39 to align with the new multi-metric test procedure by (1) removing the UEC reporting requirement for both wired and fixed-location wireless battery chargers tested under appendix Y1, and (2) adding reporting requirements for active charge energy E_a and no-battery mode power P_{nb} . Additionally, DOE is proposing to include active charge energy E_a (as measured in accordance with appendix Y1) as an optional reporting requirement when certifying compliance with the existing appendix Y requirements to assist DOE in gathering data for any future amended energy conservation standards. Whether manufacturers choose to report this proposed optional information would have no impact on the validity of representations made when certifying compliance with appendix Y or the current energy conservation standards.

DOE seeks comment on the proposed updates to reporting requirements for wired and fixed-location wireless battery chargers tested under appendix Y1.

b. Reporting Requirements for Open-Placement Wireless Battery Chargers Tested Under Appendix Y1

In the September 2022 Battery Charger Final Rule, DOE also expanded the battery charger testing scope to include testing of fixed-location wireless chargers in all modes of operation and testing of open-placement wireless chargers in no-battery mode only. 87 FR 55090, 55095-55098.

Under the current appendix Y test procedure, all modes of operation would need to be tested for battery chargers covered under the test procedure scope. As such, there was no need to differentiate the reporting requirements for wired vs. wireless chargers. However, under appendix Y1, open-placement wireless chargers will only need to be tested in the no-battery mode of operation. Accordingly, DOE is proposing to further specify that for open-placement wireless chargers, only the no-battery mode power, P_{nb} , would need to be reported.

DOE seeks comment on the proposal to further specify the reporting requirements for open-placement wireless battery chargers tested under appendix Y1.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to align battery charger certification reporting requirements with the amended appendix Y test procedural requirements, use of which was required beginning on October 11, 2022, and the newly established appendix Y1 test procedure, use of which would be required at such time as

compliance is required with any amended energy conservation standards based on these new metrics as measured using appendix Y1.

For wired chargers tested under current appendix Y, manufacturers currently report (1) the nameplate battery voltage of the test battery in volts, the nameplate battery charge capacity of the test battery in ampere-hours, and the nameplate battery energy capacity of the test battery in watt-hours; and (2) the represented values for the P_m , P_{sb} , P_{off} , E_{batt} , E_{24} , t_{cd} , and UEC; and (3) the manufacturer and model of the test battery, and the manufacturer and model, when applicable, of the external power supply. If the proposed amendments are adopted, when tested under appendix Y1, instead of reporting UEC and E_{24} values, manufacturers would report the active charge energy (E_a). Manufacturers would additionally report no-battery mode power, P_{nb} .

For fixed-location wireless chargers tested under appendix Y1, manufacturers would need to report (1) the nameplate battery voltage of the test battery in volts, the nameplate battery charge capacity of the test battery in ampere-hours, and the nameplate battery energy capacity of the test battery in watt-hours; and (2) the represented values for the P_m , P_{nb} , P_{sb} , P_{off} , E_{batt} , E_a , and duration of the charge and t_{cd} ; and (3) the manufacturer and model of the test battery, and the manufacturer and model—when applicable—of the external power supply, if the proposed amendments are adopted.

For open-placement wireless chargers tested under appendix Y1, manufacturers would need to report the represented values for P_{nb} , and the

manufacturer and model, when applicable, of the external power supply, if the proposed amendments are adopted.

DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers because manufacturers of battery chargers are already submitting certification reports to DOE and the additional information that DOE is proposing to collect as part of this rulemaking should be readily available to manufacturers and would not require additional testing. DOE does not believe the revised reporting requirements will cause any appreciable change in reporting burden or hours as compared to what battery charger manufacturers are currently doing today.

DOE requests comment on the certification reporting costs of the amendments proposed for battery chargers.

H. Computer Room Air Conditioners

DOE is proposing to amend the reporting requirements for CRACs. DOE defines “computer room air conditioner” as a basic model of commercial package air-conditioning and heating equipment (packaged or split) that is: used in computer rooms, data processing rooms, or other information technology cooling applications; rated for sensible coefficient of performance (SCOP) and tested in accordance with 10 CFR 431.96; and is not a covered consumer product under 42 U.S.C. 6291(1)-(2) and 42 U.S.C. 6292. A CRAC may be provided with, or have as available options, an integrated humidifier, temperature and/or humidity control of the supplied air, and reheating function. 10 CFR 431.92. In the energy conservation standards final rule published in the *Federal Register* on June 2, 2023 (June 2023 CRACs final rule),

DOE amended the energy conservation standards for CRACs and adopted the net sensible coefficient of performance (NSenCOP) metric. 88 FR 36392. Consistent with the June 2023 CRACs final rule, DOE is proposing amendments to the reporting requirements for CRACs.

1. Reporting

Under the existing reporting requirements for CRACs in 10 CFR 429.43(b)(2)(ix), manufacturers must report: net sensible cooling capacity in Btu/h, net cooling capacity in Btu/h, configuration (upflow/downflow), economizer presence (or lack thereof), condenser medium (air, water, or glycol-cooled), SCOP, and rated airflow in standard cubic feet per minute (SCFM). These requirements provide for certifying compliance with the standards applicable to CRACs manufactured on or after October 29, 2012, for units of capacity less than 65,000 Btu/hr. and October 29, 2013, for the remainder of covered CRACs. DOE is proposing to update these requirements and align the reporting requirements with the energy conservation standards in the June 2023 CRACs final rule. DOE is also proposing other general certification requirements for CRACs to better ascertain applicable standards and represented values, including whether the basic model is split system or single-package, unit configuration, and refrigerant utilized. DOE discusses these proposed updates in the sections as follows.

a. Revising Certification Reporting Requirements at 10 CFR 429.43(b)(2)(ix)

When Certifying with NSenCOP Standards

Manufacturers are currently required to certify compliance with SCOP standards, in addition to the other equipment-specific reporting requirements. In this NOPR, DOE is proposing to amend the certification requirements to allow certifying

compliance with NSenCOP standards and related equipment-specific reporting requirements. Specifically, DOE proposes to place the existing reporting requirements for SCOP standards in new subparagraph 10 CFR 429.43(b)(2)(ix)(A), and to place the new reporting requirements for NSenCOP standards in new subparagraph 10 CFR 429.43(b)(2)(ix)(B). The NSenCOP standard reporting requirements include the net sensible cooling capacity in Btu/h, the net total cooling capacity in Btu/h, whether the basic model is split system or single-package, the configuration (*e.g.*, downflow, upflow ducted, upflow non-ducted, horizontal flow, ceiling-mounted ducted, ceiling-mounted non-ducted), fluid economizer presence (or lack thereof), condenser heat rejection medium (air, water, or glycol-cooled), NSenCOP, rated airflow in SCFM, and the refrigerant used to determine the represented values at 10 CFR 429.43(b)(2)(ix).

DOE seeks comment on its proposal to require the reporting of net sensible cooling capacity in Btu/h, the net total cooling capacity in Btu/h, whether the basic model is split system or single-package, the configuration (*e.g.*, downflow, upflow ducted, upflow non-ducted, horizontal flow, ceiling-mounted ducted, ceiling-mounted non-ducted), fluid economizer presence (or lack thereof), condenser heat rejection medium (air, water, or glycol-cooled), NSenCOP, rated airflow in SCFM, and the refrigerant used to determine the represented values.

b. Adding Supplemental Testing Instructions for CRACs at 10 CFR

429.43(b)(4)(viii)

Currently, manufacturers must submit supplemental information regarding additional testing instructions, if applicable, and specify which special features, if any, were included in rating the basic model. 10 CFR 429.43(b)(4)(viii). The

supplemental information submitted in PDF format allows for third-party testing of equipment. For CRACs, there are currently no specific requirements for the supplemental PDF. For SCOP certification, DOE proposes to maintain the current requirements of 10 CFR 429.43(b)(4)(viii), but move them to section 10 CFR 429.43(b)(4)(viii)(A). For NSenCOP certification, DOE proposes to specify the information required in supplemental testing instructions that would enable independent testing of the relevant equipment and to align with the corresponding requirements for CUACs, where appropriate. This includes, but is not limited to supplementary information about compressor break-in period duration, control set points, optional motor/drive kits and associated settings, and any other additional testing instructions. DOE proposes to add these new provisions when certifying to NSenCOP in 10 CFR 429.43(b)(4)(viii)(B).

The proposed certification requirements provide further direction to the existing requirements and would not result in significant additional burden for manufacturers. Where DOE identifies specific test-related information, the relevant information is already collected by or available to the manufacturer, and as such, reporting that information to DOE would result in minimal additional burden.

DOE seeks comment on its proposed supplemental testing instructions requirements for CRACs when certifying compliance with NSenCOP standards.

c. Certification of Model Numbers for Split Systems

DOE's current certification reporting requirements for CRACs at 10 CFR 429.43(b)(2)(ix) do not specify the model numbers that the manufacturer must certify. Specifically, for split systems, the current regulations do not explicitly require

certification of both the outdoor and indoor unit model numbers. Therefore, DOE is proposing at 10 CFR 429.43(b)(6) to clarify that the manufacturer must certify individual model numbers for both the indoor unit and the outdoor unit.

DOE seeks comment on its proposal to require the reporting of both indoor unit and outdoor unit individual model numbers for split-system CRACs.

d. AEDM Tolerance for NSenCOP

DOE's existing testing regulations allow the use of an alternative efficiency determination method (AEDM), in lieu of testing, to simulate the efficiency of CRACs. 10 CFR 429.43(a). For models certified with an AEDM, results from DOE verification tests are subject to certain tolerances when compared to certified ratings. Currently, DOE specifies a 5-percent tolerance for CRAC verification tests for SCOP, identical to the current tolerance specified for single-point metrics (*i.e.*, EER and COP) for other categories of commercial air conditioners and heat pumps. *See* table 2 to paragraph (c)(5)(vi)(B) at 10 CFR 429.70. In alignment with the tolerance specified for SCOP, DOE is proposing to specify a tolerance of 5 percent for CRAC verification tests for NSenCOP.

DOE seeks comment on its proposal to specify a tolerance of 5 percent for CRAC verification tests for NSenCOP.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to align CRAC certification reporting requirements with the amended energy conservation standards in the June 2023 CRACs Final Rule.

DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers because manufacturers of CRACs are already submitting certification reports to DOE and should have readily available the information that DOE is proposing to collect as part of this rulemaking. DOE does not believe the revised reporting requirements will cause any appreciable change in reporting burden or hours as compared to what CRACs manufacturers are currently doing.

DOE requests comment on the certification reporting costs of the amendments proposed for CRACs.

I. Direct Expansion-Dedicated Outdoor Air Systems

DOE is proposing to establish reporting requirements for DX-DOASes. DOE defines “direct expansion-dedicated outdoor air system” as a basic model of commercial package air-conditioning and heating equipment (packaged or split) that is a unitary dedicated outdoor air system¹⁴ that is capable of dehumidifying air to a 55 °F dew point—when operating under Standard Rating Condition A as specified in Table 4 or Table 5 of AHRI (I-P)-2020, “Performance Rating of DX-Dedicated Outdoor Air System Units” (“AHRI 920-2020”) with a barometric pressure of 29.92 in Hg—for any part of the range of airflow rates advertised in manufacturer materials, and has a moisture removal capacity of less than 324 pounds per hour (“lb/h”). 10 CFR 431.92. In the DX-DOAS energy conservation standards final rule published on November 1, 2022 (“November 2022 DX-DOAS Final Rule”), DOE adopted energy

¹⁴ DOE defines “unitary dedicated outdoor air system” as a category of small, large, or very large commercial package air-conditioning and heating equipment that is capable of providing ventilation and conditioning of 100-percent outdoor air and is marketed in materials (including but not limited to, specification sheets, insert sheets, and online materials) as having such capability.

conservation standards for DX-DOASes. 87 FR 65651. Consistent with that final rule, DOE is proposing to establish reporting requirements for DX-DOASes.

1. Reporting

Prior to the adoption of energy conservation standards in the November 2022 DX-DOAS Final Rule, there were no energy conservation standards for DX-DOASes in 10 CFR 431.97, nor were there reporting requirements for this equipment in 10 CFR 429.43.¹⁵ Because DOE has now adopted energy conservation standards for DX-DOASes, DOE is proposing to establish reporting requirements in alignment with the standards adopted in the November 2022 DX-DOAS Final Rule. DOE discusses these proposals in the following sections.

a. Addition of Certification Requirements to Include the New Metrics, ISMRE2 and ISCOP2

In this NOPR, DOE is proposing certification requirements for certifying compliance with the new energy conservation standards for DX-DOAS, expressed in integrated seasonal moisture removal efficiency 2 (“ISMRE2”) and integrated seasonal coefficient of performance 2 (“ISCOP2”), as adopted in the November 2022 DX-DOAS Final Rule. Specifically, DOE proposes to add new 10 CFR 429.43(b)(2)(xi)(A) and require the following when certifying compliance with an ISMRE2 standard: the ISMRE2 in lb/kWh, the rated moisture removal capacity at Standard Rating Condition A according to AHRI 920-2020 (incorporated by

¹⁵ In the November 2022 DX-DOAS Final Rule, DOE adopted a requirement in 10 CFR 429.43(a)(3)(i) that the represented value of moisture removal capacity (“MRC”) be either between 95 and 100 percent of the mean of the measured capacities of the units in the selected sample rounded to the nearest lb/hr multiple according to Table 3 of AHRI 920-2020 or the MRC output simulated by an AEDM rounded to the nearest lb/hr multiple according to Table 3 of AHRI 920-2020. DOE is adopting these provisions, 87 FR 65658,65667. .

reference; *see* 10 CFR 429.4) (MRC in lb/h), and the rated supply airflow rate for 100 percent outdoor air applications (Q_{SA} in standard cubic feet per minute). The moisture removal capacity is used for certifying compliance and the rated supply airflow rate must be specified to determine how to test a basic model according to the DOE test procedure at appendix B to subpart F of 10 CFR 431.

Additionally, DOE proposes to require the following at 10 CFR 429.43(b)(2)(xi)(B) when certifying compliance with an IS COP2 standard in addition to an ISMRE2 standard¹⁶: the IS COP2 in watts of heating per watts of power input (“W/W”).

DOE proposes to include these certification provisions for DX-DOASes in 10 CFR 429.43(b), consistent with other commercial HVAC equipment. As a result, the general requirements applicable to certification reports outlined in 10 CFR 429.12 would apply to DX-DOASes, as currently outlined in the existing reporting requirements for commercial HVAC equipment. 10 CFR 429.43(b)(1).

DOE seeks comment on requiring the reporting of ISMRE2 and IS COP2 to certify compliance with the standards applicable to DX-DOASes manufactured on or after May 1, 2024. DOE also seeks comment on reporting rated moisture removal capacity and rated supply airflow rate.

¹⁶ Certification and compliance with both the applicable IS COP2 and ISMRE2 standards is required for the air-source heat pump and water-source heat pump DX-DOAS equipment classes.

b. Reporting Requirements for DX-DOASes with Ventilation Energy Recovery Systems

In the November 2022 DX-DOAS Final Rule, DOE adopted product-specific enforcement provisions for DX-DOASes in 10 CFR 429.134(s) in addition to the revised energy conservation standards. These enforcement provisions specify how DOE would determine the ISMRE2 and ISCOP2 values when conducting enforcement testing for DX-DOASes with Ventilation Energy Recovery Systems (“VERS”). As outlined in §429.134(s)(2)-(3), these provisions rely on values of VERS performance certified to DOE as the basis for determining the ISMRE2 and/or ISCOP2 of the basic model being tested in some scenarios.

To inform DOE’s enforcement testing, DOE is proposing additional non-public certification reporting requirements for DX-DOASes with VERS in new subparagraph 10 CFR 429.43(b)(3)(iii). These reporting requirements include the method of determination of the exhaust air transfer ratio (“EATR”), sensible effectiveness, latent effectiveness of the ventilation energy recovery system (name and version of certified performance modeling software or if the device was directly tested), the test method (*i.e.*, Option 1 or Option 2) for units rated based on testing, and motor control settings (including rotational speed) for energy recovery wheels—all of which would be used by DOE to determine ISMRE2 and/or ISCOP2 for enforcement testing and would be considered non-public information if adopted.

DOE seeks comment on its proposal to include reporting requirements for DX-DOASes with ventilation energy recovery systems.

c. Supplemental Testing Instructions

Currently, manufacturers of other covered commercial HVAC equipment types must submit in PDF format supplemental information regarding additional testing instructions, if applicable, and they must also specify which, if any, special features were included in rating the basic model. 10 CFR 429.43(b)(4). The supplemental information submitted in PDF format allows for third-party testing of equipment. Consistent with other commercial HVAC equipment types, DOE proposes to specify information required in supplemental testing instructions submitted in PDF format for DX-DOASEs to enable independent testing of the relevant equipment and to align with the corresponding requirements for CUACs, where appropriate.

Specifically, for all DX-DOASEs, DOE is proposing the following content requirements for the supplemental instructions PDF attachment: water flow rate in gallons per minute (“gpm”) for water-cooled and water-source units, rated external static pressure (“ESP”) in inches of water column for the supply air stream, frequency or control set points for variable speed components (*e.g.*, compressors, Variable Frequency Drives (“VFDs”)), required dip switch/control settings for step or variable components (*e.g.*, reheat or head pressure control valves), a statement as to whether the model will operate at test conditions without manufacturer programming, and any additional testing instructions specified in AHRI 920-2020, if applicable (*e.g.*, supply air dry bulb temperatures for ISMRE2 tests, equipment settings for airflow, installation priority for split-system units, defrost control settings for air-source heat pump units, compressor break-in period, or condenser head pressure controls). Additionally, if a variety of motors/drive kits are offered for sale as options in the basic model to account for varying installation requirements, DOE is proposing that

the supplemental file also include the model number, the specifications of the motor (including efficiency, horsepower, open/closed, and number of poles) and the drive kit (including settings) associated with that specific motor that were used to determine the certified rating.

For DX-DOASes with VERS, DOE is proposing the following additional content requirements for the supplemental instruction PDF attachment: rated ESP in inches of water column for the return air stream, exhaust air transfer ratio at the rated supply airflow rate and a neutral pressure difference between return and supply airflow (EATR as a percent value), sensible and latent effectiveness of the ventilation energy recovery system at 75 percent of the nominal supply airflow and zero pressure differential, sensible and latent effectiveness of the ventilation energy recovery system at 100 percent of the nominal supply airflow and zero pressure differential, and any additional testing instructions, if applicable (*e.g.*, deactivation of VERS or VERS bypass in accordance with section 5.4.3 of AHRI 920-2020).

DOE seeks comment on its proposal to require supplemental testing instruction file contents for DX-DOASes.

2. Reporting Costs and Impacts

The addition of reporting requirements for DX-DOASes would newly require manufacturers to report this information. DOE discusses reporting cost impacts corresponding to this proposal in section IV.C of this document.

DOE requests comment on its proposal to add new reporting requirements for DX-DOASes.

J. Air Cooled, Three-Phase, Small Commercial Air Conditioners and Heat Pumps with a Cooling Capacity of Less Than 65,000 Btu/h and Air-Cooled, Three-Phase, Variable Refrigerant Flow Air Conditioners and Heat Pumps with a Cooling Capacity of Less Than 65,000 Btu/h

DOE is proposing to amend the reporting requirements for three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF. Three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF are both categories of small commercial package air conditioning and heating equipment. Commercial package air-conditioning and heating equipment may be air cooled, water cooled, evaporatively cooled, or water source based (not including ground water source). This equipment is electrically operated and designed as unitary central air conditioners or central air conditioning heat pumps for use in commercial applications. 10 CFR 431.92.

In the energy conservation standards (“ECS”) final rule published in the *Federal Register* on June 2, 2023 (“June 2023 3-Phase Final Rule”), DOE amended energy conservation standards for three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF to be in terms of the new cooling and heating metrics, SEER2 and HSPF2, respectively, as determined by using the new test procedure at appendix F1 to subpart F of 10 CFR part 431. 88 FR 36368. Consistent with that final rule, DOE is proposing amendments to the reporting requirements for three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF.

1. Reporting

Under the existing requirements in 10 CFR 429.67(f)(2)(i) and (ii) for three-phase, less than 65,000 Btu/h ACUACs and ACUHPs, manufacturers must report the seasonal energy efficiency ratio (“SEER”) in British thermal units per Watt-hour (“Btu/Wh”), the rated cooling capacity in Btu/h, and (for heat pumps) the heating seasonal performance factor (“HSPF”) in Btu/Wh.

Under the existing requirements in 10 CFR 429.67 (f)(2)(iii) and (iv) for three-phase, less than 65,000 Btu/h VRF, manufacturers must report the SEER in Btu/Wh, rated cooling capacity in Btu/h, and (for heat pumps) the HSPF in Btu/Wh.

These requirements provide for certifying compliance with the standards applicable to three-phase, less than 65,000 Btu/h ACUACs and ACUHPs manufactured on or after January 1, 2017, and the standards applicable to three-phase, less than 65,000 Btu/h VRF manufactured on or after June 16, 2008. 88 FR 36368, 36389. DOE is proposing to update these reporting requirements to align with the amended standards adopted by the June 2023 3-Phase Final Rule that apply to three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF manufactured on or after January 1, 2025. 88 FR 36368, 36389. Additionally, DOE is proposing general certification requirements for three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF. DOE discusses these proposed updates in the sections as follows.

a. Updating the Certification Requirements to Include the New Metrics, SEER2 and HSPF2

In the June 2023 3-Phase Final Rule, DOE amended energy conservation standards for three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF to be in terms of the new cooling and heating metrics, SEER2 and HSPF2. *Id.* Accordingly, in this document, DOE is proposing to update the certification requirements at 10 CFR 429.67(f)(2) to include ratings in terms of SEER2 and HSPF2, which will become the required reporting metrics upon the compliance date of the amended standards. Manufacturers may use appendix F1 to certify compliance with the amended standards based on SEER2 and HSPF2 prior to the applicable compliance date for the amended energy conservation standards.

DOE seeks comment on its proposal to require the reporting of new metrics, such as SEER2 and HSPF2.

b. Aligning Basic Model Number and Individual Model Number(s) Reporting Requirements with Single-Phase Products

DOE proposes to include additional instructions regarding the basic model number and individual model number(s) required to be reported under 10 CFR 429.12(b)(6); this proposal is consistent with the requirement for single-phase products and represents readily available information to the manufacturer regarding the requirements for three-phase equipment.

Specifically, DOE would require in new subparagraph 10 CFR 429.67(f)(4) that the basic model number and individual model number(s) reported under 10 CFR 429.12(b)(6) consist of the following:

Equipment type	Basic model number	Individual model number(s)		
		1	2	3
Single-Package (including Space-Constrained)	Number unique to the basic model	Package	N/A	N/A
Single-Split System (including Space-Constrained and SDHV)	Number unique to the basic model	Outdoor Unit	Indoor Unit	If applicable—Air Mover (could be same as indoor unit if fan is part of indoor unit model number).
Multi-Split, Multi-Circuit, and Multi-Head Mini-Split System (including Space-Constrained and SDHV)	Number unique to the basic model	Outdoor Unit	When certifying a basic model based on tested combination(s): * * * When certifying an individual combination: Each indoor units paired with the outdoor unit	If applicable—When certifying a basic model based on tested combination(s): * * *. When certifying an individual combination: Each air movers paired with the outdoor unit.
Outdoor Unit with No Match	Number unique to the basic model	Outdoor Unit	N/A	N/A

c. Outdoor Units with No Match

For three-phase, less than 65,000 Btu/h ACUACs and ACUHPs with outdoor units having no matching indoor component, DOE proposes requiring that in addition to any supplemental testing instructions used to satisfy the existing requirement in 10 CFR 429.67(f)(3), supplemental testing instructions also include any additional testing and testing set up instructions necessary to operate the basic model under the required conditions specified by the test procedure. Specifically, manufacturers must provide information regarding the following characteristics of the indoor coil: the face area, the coil depth in the direction of airflow, the fin density (fins per inch), the fin material, the fin style, the tube diameter, the tube material, and the numbers of tubes high and deep. This proposed requirement would be consistent with the 10 CFR 429.16 requirement for single-phase products, as well as with the test requirements in the 2019 edition of American Society of Heating, Refrigerating and Air-Conditioning Engineers (“ASHRAE”) Standard 90.1 “*Energy Standard for Buildings Except Low-*

Rise Residential Buildings” (“ASHRAE 90.1-2019”), which, in turn, references ANSI/AHRI 210/240, “2023 Standard for Performance Rating of Unitary Air-conditioning & Air-source Heat Pump Equipment” (“AHRI 210/240-2023”).

Therefore, this information should be readily available to manufacturers and will not add manufacturer burden.

d. Sampling Corrections

Currently, DOE’s sampling provisions for three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF state that any represented value of cooling capacity and heating capacity must each be a self-declared value that is less than or equal to the lower of the mean of the sample, or the lower 90 percent confidence limit of the true mean (“LCL”) divided by 0.95. 10 CFR 429.67(c)(2)(ii)(A)(2). The sampling provisions also state that the LCL should be calculated using the Student’s t-Distribution Values for a 90 percent one-tailed confidence interval with n-1 degrees of freedom from appendix D to subpart B of part 429, where “n” is the number of samples. *Id.* However, the appendix containing Student’s t-Distribution Values has moved to appendix A to subpart B of part 429 (“appendix A”). To correct this discrepancy, DOE is proposing to revise 10 CFR 429.67(c)(2)(ii)(A)(2) to specify that the LCL should be calculated using the Student’s t-Distribution Values for a 90 percent one-tailed confidence interval outlined in appendix A.

DOE seeks comment on its proposal to correct the sampling provisions for three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF to reference appendix A.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to align the three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF certification reporting requirements with the amended standards adopted by the June 2023 3-Phase Final Rule that apply to products manufactured on or after January 1, 2025. 88 FR 36368.

For three-phase, less than 65,000 Btu/h ACUACs and three-phase, less than 65,000 Btu/h VRF air conditioners, manufacturers currently report SEER in Btu/Wh and rated cooling capacity in Btu/h, but would report SEER2 in Btu/Wh in lieu of SEER to conform with the amended standards. For three-phase, less than 65,000 Btu/h ACUHPs and three-phase, less than 65,000 Btu/h VRF heat pumps, manufacturers currently report SEER in Btu/Wh, HSPF in Btu/Wh, and rated cooling capacity in Btu/h, but would be required to report SEER2 in Btu/Wh and HSPF2 in Btu/Wh in lieu of SEER and HSPF to conform with the amended standards.

DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers because manufacturers of three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF are already submitting certification reports to DOE and should have readily available the information that DOE is proposing to collect as part of this rulemaking. DOE does not believe the revised reporting requirements will cause any appreciable change in reporting burden or hours as compared to what three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF manufacturers are doing currently.

DOE requests comment on the certification reporting costs of the amendments proposed for three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF.

K. Commercial Water Heating Equipment

DOE is proposing to amend the reporting requirements for commercial water heating equipment. EPCA prescribes energy conservation standards for several classes of CWH equipment manufactured on or after January 1, 1994. (42 U.S.C. 6313(a)(5)) DOE codified these standards in its regulations for CWH equipment at 10 CFR 431.110. However, when codifying these standards from EPCA, DOE inadvertently omitted the standards put in place by EPCA for electric instantaneous water heaters, which are instantaneous water heaters with a rated input both greater than 12 kW and not less than 4,000 Btu/h per gallon of stored water (*see* 10 CFR 431.102). Therefore, in a NOPR published on May 19, 2022 (“May 2022 CWH NOPR”), DOE proposed to codify these standards in its regulations at 10 CFR 431.110. 87 FR 30610, 30622.

DOE is proposing to establish reporting requirements for commercial electric instantaneous water heaters (except for residential-duty commercial electric instantaneous water heaters for which certification is already addressed in 10 CFR 429.44), consistent with the May 2022 CWH NOPR.

Additionally, DOE is proposing to add reporting requirements for commercial electric storage water heaters to ensure that the input rating of all certified models exceeds the 12 kW threshold that is part of the definition of electric storage water heaters at 10 CFR 431.102.

1. Reporting

Under the existing requirements in 10 CFR 429.44, manufacturer certification reports for commercial water heating equipment are not required to include information about electric instantaneous water heaters. 10 CFR 429.44(c)(2).

Therefore, for commercial electric instantaneous water heaters of all storage volumes (except for residential-duty commercial electric instantaneous water heaters), DOE is proposing to add certification requirements for thermal efficiency, storage volume, rated input, and whether the storage volume is determined using a weight-based test (in accordance with 10 CFR 431.106) or the calculation-based method (in accordance with 10 CFR 429.72(e), as discussed in the following paragraph). For electric instantaneous water heaters with storage volume greater than or equal to 10 gallons (and thus subject to a standby loss standard), DOE is also proposing to require that the following information be certified to ensure compliance with standby loss standards and to enable DOE to understand how the standby test was conducted for each basic model: (1) standby loss, (2) whether the water heater initiates heating element operation based on a temperature-controlled call for heating that is internal to the water heater, (3) whether the water heater includes an integral pump purge functionality, and (4) the default duration of the pump off delay (for models equipped with integral pump purge).

Similarly, DOE is proposing to allow use of a calculation-based method for determining the storage volume of electric instantaneous water heaters that is the same as the method for gas-fired and oil-fired instantaneous water heaters and hot water supply boilers found at 10 CFR 429.72(e). Furthermore, DOE is proposing to

clarify that the method for calculating volume for instantaneous water heaters found at 10 CFR 429.72(e) does not apply to storage-type instantaneous water heaters.

Finally, for commercial electric storage water heaters, DOE is proposing to add a certification requirement for rated input to ensure that the input rating of all certified models exceeds the 12 kW threshold that is part of the definition of electric storage water heaters at 10 CFR 431.102. DOE proposes that manufacturers would be required to comply with the certification requirement beginning on the date of the next annual filing of certification reports required for CWH equipment following the publication of a final rule.¹⁷

DOE seeks comment on its proposal to require the reporting of thermal efficiency, storage volume, rated input, and whether the storage volume is determined using a weight-based test or the calculation-based method for commercial electric instantaneous water heaters of all storage volumes (except for residential-duty commercial electric instantaneous water heaters). DOE also seeks comment on its proposal to require the reporting of standby loss, whether the water heater initiates heating element operation based on a temperature-controlled call for heating that is internal to the water heater, whether the water heater includes an integral pump purge functionality, and the default duration of the pump off delay (for models equipped with integral pump purge) for electric instantaneous water heaters with storage volume greater than or equal to 10 gallons. Additionally, DOE seeks comment on its

¹⁷ The annual certification report filings for commercial water heating equipment are due on May 1. See 10 CFR 429.12.

proposed calculation-based method for determining storage volume of electric instantaneous water heaters.

DOE seeks comment on its proposal to add a requirement for the reporting of rated input for commercial electric storage water heaters.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to align the certification reporting requirements for commercial electric instantaneous water heaters (except for residential-duty commercial electric instantaneous water heaters) with the energy conservation standards for such equipment as required by EPCA, and as proposed to be codified at 10 CFR 431.110 by the May 2022 CWH NOPR.

Manufacturers of commercial electric instantaneous water heaters (except for residential-duty commercial electric instantaneous water heaters) do not currently report any information about the performance or characteristics of such equipment, but would be required to report thermal efficiency, storage volume, rated input, and whether the storage volume is determined using a weight-based test (in accordance with 10 CFR 431.106) or the calculation-based method (in accordance with 10 CFR 429.72(e)).

Additionally, for electric instantaneous water heaters with storage volume greater than or equal to 10 gallons (and thus subject to a standby loss standard), manufacturers would also be required to report standby loss, whether the water heater initiates heating element operation based on a temperature-controlled call for heating that is internal to the water heater, whether the water heater includes an integral pump

purge functionality, and the default duration of the pump off delay (for models equipped with integral pump purge).

Any manufacturer of commercial electric instantaneous water heaters would be required to begin submitting certification reports. Costs associated with the proposed updates to reporting requirements are discussed in section IV.C of this document.

In this NOPR, DOE also proposes to amend the certification reporting requirements for commercial electric storage water heaters to require manufacturers to report rated input.

DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers of commercial electric storage water heaters because they are already submitting certification reports to DOE and should have readily available the information that DOE is proposing to collect as part of this rulemaking. DOE does not believe the revised reporting requirements will cause any appreciable change in reporting burden or hours as compared to what commercial electric storage water heaters manufacturers are currently doing today.

DOE requests comment on the certification reporting costs of the amendments proposed for commercial electric instantaneous water heaters and commercial electric storage water heaters.

L. Automatic Commercial Ice Makers

DOE is proposing to amend the reporting requirements for ACIMs, which are factory-made assemblies (not necessarily shipped in 1 package) that (1) consist of a condensing unit and ice-making section operating as an integrated unit, with means for making and harvesting ice; and (2) may include means for storing ice, dispensing ice, or storing and dispensing ice. 10 CFR 431.132. In the November 1, 2022 Automatic Commercial Ice Maker Test Procedure Final Rule (“November 2022 ACIM Final Rule”), DOE replaced the terms “maximum energy use” and “maximum condenser water use” with “energy use” and “condenser water use,” respectively, for ACIMs. 87 FR 65856, 56892. Consistent with that rulemaking, DOE is proposing amendments to the reporting requirements for ACIMs.

1. Reporting

Under the existing requirements in 10 CFR 429.45, manufacturers must report maximum energy use in kilowatt hours (“kWh”) per 100 pounds of ice, maximum condenser water use in gallons per 100 pounds of ice, harvest rate in pounds of ice per 24 hours, type of cooling, and equipment type. 10 CFR 429.45(b)(2). These requirements provide for certifying compliance with the standards applicable to ACIMs manufactured on or after January 28, 2018. 10 CFR 431.136(c) and (d). DOE is proposing to update these requirements and align the reporting requirements with the November 2022 ACIM Final Rule and proposing general certification requirements for ACIMs. DOE discusses these proposed updates in the sections as follows.

a. Energy and Water Condenser Use

For ACIMs, the current reporting requirements include maximum energy use in kWh per 100 pounds of ice and maximum condenser water use in gallons per 100 pounds of ice. 10 CFR 429.45(b)(2). In the November 2022 ACIM Final Rule, DOE determined that the reference to “maximum energy use” and “maximum condenser water use” in 10 CFR 429.45 could be misinterpreted to refer to the energy and water conservation standard levels for that basic model (*i.e.*, the maximum allowable energy and maximum allowable condenser water use), as opposed to the tested performance. 87 FR 65856, 65891. Therefore, in that same rule, for consistency and clarity, DOE replaced the term “maximum energy use” with the term “energy use” and the term “maximum condenser water use” with the term “condenser water use.” *Id.* at 87 FR 65892. In addition, values of both energy and condenser water consumption are relevant for ACIMs. *Id.* at 87 FR 65891. As such, DOE modified the language at 10 CFR 429.45 to specify expressly that the sampling plan at 10 CFR 429.45(a)(2)(i) applies both to measures of energy and condenser water use for which consumers would favor lower values. *Id.* at 87 FR 65892.

Similarly, 10 CFR 431.132 included a definition for the term “maximum condenser water use.” This language may also be misinterpreted to refer to the condenser water conservation standard level for a basic model as opposed to the tested condenser water use. Therefore, in the November 2022 ACIM Final Rule, DOE modified the term and definition of “maximum condenser water use” to instead refer to the term “condenser water use.” *Id.*

In the November 2022 ACIM Final Rule, DOE did not revise the reporting requirements in 10 CFR 429.45 to remove the term “maximum” and align the

requirements with the newly adopted definitions for “energy use” and “condenser water use.” *Id.* at 87 FR 65897. As a result, DOE is proposing to update the reporting requirements to specify “energy use” and “condenser water use” in this document.

DOE seeks comment on its proposal to align ACIM reporting requirement terminology with the amended terms.

b. Rounding Requirements

DOE currently requires test results for ACIMs to be rounded, as outlined in the ACIMs test procedure. 10 CFR 431.134(g). However, the certification requirements in 10 CFR 429.45 do not specify how values calculated in accordance with 10 CFR 429.45(a) would be rounded for reporting per 10 CFR 429.45(b). To ensure consistency among ACIM certification reports, DOE proposes that any reported values be rounded consistent with the rounding requirements for individual test results. Specifically, DOE proposes to require that reported values be rounded as follows: energy use to the nearest 0.01 kWh/100 lb, condenser water use to the nearest gal/100 lb, and harvest rate to the nearest 1 lb/24 h (for ACIMs with harvest rates greater than 50 lb/24 h) or to the nearest 0.1 lb/24 h (for ACIMs with harvest rates less than or equal to 50 lb/24 h).

DOE seeks comment on its proposal to establish rounding requirements for ACIMs.

c. Sampling Corrections

Currently, DOE’s sampling provisions for ACIMs state that any represented value of energy use, condenser water use, or other measure of consumption of a basic

model for which consumers would favor lower values shall be greater than or equal to the higher of the mean of the sample, or the upper 95 percent confidence limit of the true mean (“UCL”) divided by 1.10. 10 CFR 429.45(a)(2). The sampling provisions also state that the UCL should be calculated using the Student's t-Distribution Values for Certification Testing for a 95 percent two-tailed confidence interval with n-1 degrees of freedom from appendix A, where “n” is the number of samples. *Id.* However, appendix A outlines Student’s t-Distribution Values that are based on a one-tailed confidence interval, rather than the two-tailed confidence interval specified in 10 CFR 429.45(a)(2)(ii). To correct this discrepancy, DOE is proposing to revise 10 CFR 429.45(a)(2)(ii) to specify that the UCL should be calculated using the Student's t-Distribution Values for Certification Testing for a 95 percent one-tailed confidence interval outlined in appendix A.

DOE seeks comment on its proposal to correct the sampling provisions for ACIMs.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to align ACIM certification reporting requirements with the amended terms adopted in the November 2022 ACIM Final Rule. For ACIMs, manufacturers currently report maximum energy use and maximum condenser water and under the proposed amended requirements would report energy use and condenser water use, which are substantially similar to the previous requirement.

DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers because manufacturers of ACIMs are already submitting certification reports to DOE containing these values and should have readily available the information that DOE is proposing to collect as part of this proposed rulemaking. DOE does not believe the revised reporting requirements will cause any appreciable change in reporting burden or hours as compared to what ACIM manufacturers are doing currently.

DOE requests comment on the certification reporting costs of the amendments proposed for ACIMs.

M. Walk-In Coolers and Freezers

DOE is proposing to amend the reporting requirements for walk-in coolers and walk-in freezers (“walk-ins”), which are enclosed storage spaces refrigerated to temperatures, respectively, above and at or below 32 °F that can be walked into and have a total chilled storage area of less than 3,000 square feet. The terms “walk-in cooler” and “walk-in freezer” do not include products designed and marketed exclusively for medical, scientific, or research purposes. 10 CFR 431.302 In the test procedure final rule published on May 4, 2023 (“May 2023 Walk-ins TP Final Rule”), DOE amended the test procedure provisions for walk-ins. 88 FR 28780. Consistent with the May 2023 Walk-ins TP Final Rule, DOE is proposing amendments to the reporting requirements in this NOPR.

1. Reporting

Under the existing requirements in 10 CFR 429.53, manufacturers must report the following public information:

- 1) For all walk-in doors: the door type, R-value of the door insulation, a declaration that the manufacturer has incorporated the applicable design requirements, door energy consumption, and rated surface area in square feet. 10 CFR 429.53(b)(2)(i) and (b)(3)(i)
- 2) For walk-in doors with transparent reach-in doors and windows, the glass type of the doors and windows (e.g., double-pane with heat reflective treatment, triple-pane glass with gas fill), and the power draw of the antisweat heater in watts per square foot of door opening. 10 CFR 429.53 (b)(i)
- 3) For walk-in panels: the insulation R-value. 10 CFR 429.53(b)(ii)
- 4) For walk-in refrigeration systems: the installed motor's function purpose (i.e., evaporator fan motor or condenser fan motor), its rated horsepower, a declaration that the manufacturer has incorporated the applicable walk-in-specific design requirements into the motor, annual walk-in energy factor ("AWEF"), net capacity, the configuration tested for certification (e.g., condensing unit only, unit cooler only, single-packaged dedicated system, or matched pair), and if an indoor dedicated condensing unit is also certified as an outdoor dedicated condensing unit (and, if so, the basic model number for the outdoor dedicated condensing unit). 10 CFR 429.53(b)(2)(iii), (b)(3)(ii), (b)(5)

Under the existing requirements in 10 CFR 429.53, manufacturers must report the following non-public information for all walk-in doors: (1) rated power of each

light, heater wire, and/or other electricity consuming device; and (2) whether such device(s) has/have a timer, control system, or other demand-based control that reduces the device's power consumption. 10 CFR 429.53(b)(4)(i)

These requirements provide for certifying compliance with the standards applicable to walk-in doors, panels, and medium temperature dedicated condensing units (including medium temperature single-packaged dedicated systems and matched pairs) manufactured on or after June 5, 2017 and with the standards applicable to walk-in low temperature dedicated condensing units (including low temperature single-packaged dedicated systems and matched pairs), low temperature unit coolers, and medium temperature unit coolers manufactured on or after July 10, 2020. DOE is proposing to update these requirements and align the reporting requirements with the May 2023 Walk-ins TP Final Rule. DOE discusses these proposed updates in the sections as follows.

a. Combining the Publicly Required Reporting Requirements in 10 CFR

429.53(b)(2), 429.53 (b)(3), and 429.53(b)(5)

The current reporting requirements at 10 CFR 429.53(b) specify public reporting requirements in three paragraphs – (b)(2), (b)(3), and (b)(5) – based on whether the reporting requirement was submitted before or after June 5, 2017. Given this date has passed, DOE is proposing to combine the public product-specific reporting requirements at 10 CFR 429.53(b)(2) and move the non-public product-specific reporting requirements from 10 CFR 429.53(b)(4) to 10 CFR 429.53(b)(3).

b. CO₂ Systems

DOE has granted waivers to Heat Transfer Products Group, Hussmann, KeepRite, and RefPlus for an alternate test procedure for specific unit cooler basic models that utilize CO₂ as a refrigerant.¹⁸ The alternate test procedure provided in these waivers modifies the test condition values to reflect typical operating conditions for a transcritical¹⁹ CO₂ booster system. Specifically, the waiver test procedures require that CO₂ unit cooler testing is conducted at a liquid inlet saturation temperature of 38 °F and a liquid inlet subcooling temperature of 5 °F.

In the May 2023 Walk-ins TP Final Rule, DOE amended appendix C to include the alternate test conditions specified in the waivers. DOE also adopted these requirements into the new appendix C1. 88 FR 28780, 28809. Additionally, in the May 2023 Walk-ins TP Final Rule, DOE defined a “CO₂ unit cooler” as “a unit cooler that includes a nameplate listing only CO₂ as an approved refrigerant”. 88 FR 28780, 28790.

Accordingly, DOE proposes to amend the public reporting requirements at 10 CFR 429.53(b)(2)(iii) to require that manufacturers report whether a given basic model meets the definition of a CO₂ unit cooler as defined in the May 2023 Walk-ins TP Final Rule. DOE proposes that manufacturers would be required to comply with the proposed reporting requirement beginning on the next certification report annual

¹⁸ HTPG Decision and Order, 86 FR 14887 (Mar. 19, 2021); Hussmann Decision and Order, 86 FR 24606 (May 7, 2021); KeepRite Decision and Order, 86 FR 24603 (May 7, 2021); RefPlus Interim Waiver, 86 FR 43633 (Aug. 10, 2021).

¹⁹CO₂ refrigeration systems are transcritical because the high-temperature refrigerant that is cooled by ambient air is in a supercritical state, above the 87.8 °F critical point temperature, above which the refrigerant cannot exist as separate vapor and liquid phases.

filing date required for walk-in components following the publication of this rule, if finalized.²⁰

DOE seeks comment on its proposal to require the reporting of whether a basic model meets the definition of a CO₂ unit cooler.

c. Detachable Single-Packaged Dedicated Systems and Attached Split System

In the May 2023 Walk-ins TP Final Rule, DOE defined a “detachable single-packaged dedicated system” as a system consisting of a dedicated condensing unit and an insulated evaporator section in which the evaporator section is designed to be installed external to the walk-in enclosure and circulating air through the enclosure wall, and the condensing unit is designed to be installed either attached to the evaporator section or mounted remotely with a set of refrigerant lines connecting the two components. 88 FR 28780, 28790. Since detachable single-packaged dedicated systems have thermal losses similar to those for single-packaged dedicated systems, DOE adopted the air enthalpy test procedure for single-packaged dedicated systems in the May 2023 Walk-ins TP Final Rule. 88 FR 28780, 28815-28816.

Additionally, DOE defined an “attached split system” in the May 2023 Walk-ins TP Final Rule as a matched pair refrigeration system that is designed to be installed with the evaporator entirely inside the walk-in enclosure and the condenser entirely outside the walk-in enclosure, where the evaporator and condenser are permanently connected with structural members extending through the walk-in wall. 88 FR 28780, 28790. DOE has confirmed through testing that these systems still

²⁰ The annual certification report filings for walk-ins are due no later than August 1. *See* 10 CFR 429.12, Table 1 to paragraph (d).

experience some heat leakage when compared to traditionally installed systems that have the dedicated condensing unit and the unit cooler in separate housings. This heat leakage has not been fully studied, however, so in the May 2023 Walk-ins TP Final Rule, DOE specified that these systems should be tested as a matched pair using refrigerant enthalpy methods. 88 FR 28780, 28816.

Although both detachable single-packaged dedicated systems and attached split systems would be considered a “single-packaged dedicated system,” the two would be tested differently. Some of the previously discussed test procedure waivers specify basic models that meet the definition of a detachable single-packaged dedicated system or an attached split system. To ensure appropriate testing and consistent reporting, it is important that these units be identified during certification.

Accordingly, DOE proposes to amend the public reporting requirements at 10 CFR 429.53(b)(2)(iii) to require that manufacturers report whether a given basic model meets the definition of a “detachable single-packaged dedicated system” or an “attached split system” as defined in the May 2023 Walk-ins TP Final Rule. DOE proposes that manufacturers would be required to comply with the proposed reporting requirement beginning on the next certification report annual filing date required for walk-in components following the publication of this rule, if finalized.

DOE seeks comment on its proposal to require the reporting of whether a basic model meets the definition of a detachable single-packaged dedicated system or an attached split system.

d. Head Pressure Control

In the May 2023 Walk-ins TP Final Rule, DOE adopted refrigerant charging provisions for walk-in dedicated condensing systems that use valves to “flood” the condenser with liquid refrigerant to maintain sufficiently high condensing temperature under cold air temperatures. 88 FR 28780, 28804-28806. Specifically, DOE noted that charging in the “C” test condition rather than the “A” test condition is appropriate for dedicated condensing systems (dedicated condensing units, matched systems, and single-packaged dedicated systems) that use a flooded condenser design. *Id.* However, for dedicated condensing systems that use fan controls to maintain condensing temperature for low ambient operating conditions, the test procedure specifies charging at the “A” test condition. 88 FR 28780, 28804-28806.

Accordingly, DOE proposes to amend the non-public reporting requirements at 10 CFR 429.53(b)(3)(ii)²¹ to require that manufacturers report whether a given dedicated condensing system basic model is sold with flooded head pressure controls for maintaining condensing temperature at low ambient temperatures. DOE proposes that manufacturers would be required to comply with the proposed reporting requirement beginning on the next certification report annual filing date required for walk-in components following the publication of this rule, if finalized.

DOE seeks comment on its proposal to require the reporting of whether a dedicated condensing system basic model includes flooded head pressure controls.

²¹ Note that currently 10 CFR 429.53(b)(3) specifies public reporting requirements. In this NOPR, DOE is proposing to revise 10 CFR 429.53(b) such that paragraph (b)(2) specifies the public reporting requirements and paragraph (b)(3) specifies non-public reporting requirements.

e. Compressor Break-In

Although the DOE test procedure for walk-in refrigeration systems does not require a compressor “break-in” period, DOE recognizes that walk-in refrigeration manufacturers may routinely break-in the refrigeration system compressor for some time prior to conducting testing. This break-in period can reduce variation in compressor performance.

In the June 8, 2016, central air conditioners and heat pumps test procedure final rule, DOE noted that the most significant improvements in both compressor performance and reduction in variation among compressor models occur during roughly the first 20 hours of run time. 81 FR 36992, 37034. Ultimately, DOE adopted the provision to limit the optional break-in period to 20 hours to achieve the most uniform compressor performance while limiting test burden. *Id.* DOE additionally included provisions for manufacturers to have the option to report the use of a break-in period and its duration as part of the test data underlying their product certifications, the use of the same break-in period specified in product certifications for testing conducted by DOE, and the use of the 20 hours break-in period for products certified using an alternative efficiency determination method (“AEDM”). 81 FR 36992, 37033.

Other DOE-regulated equipment, such as dedicated outdoor air systems (*see* appendix B to subpart F of 10 CFR part 431 and discussion at 87 FR 45164, 45177-45178), single package vertical air conditioners and heat pumps (“SPVUs”) (*see* section I of subpart F to 10 CFR part 431) and air-cooled unitary air conditions and heat pumps (“CUACs”) (*see* 10 CFR 431.96) include required or optional provisions for compressor break-in either as part of the test procedure or as a certification option,

so that any potential enforcement testing uses conditions similar to those used for rating a given unit. Whether required or optional, break-in duration is limited to a maximum of 20 hours for dedicated outdoor air supply units, SPVUs, and CUACs.

Accordingly, DOE proposes to amend the non-public reporting requirements at 10 CFR 429.53(b)(3)(ii) ²² to provide an option for manufacturers to report the compressor break-in period, in hours, used to obtain a basic model's certified rating; however, the break-in duration may not exceed 20 hours in length. DOE proposes that manufacturers would be required to comply with the proposed reporting requirement beginning on the next certification report annual filing date required for walk-in components following the publication of this rule, if finalized.

DOE seeks comment on its proposal to amend the reporting requirements and provide an option for manufactures to report compressor break-in.

f. Supplemental Testing Instructions

As discussed previously, DOE requires manufacturers of covered commercial HVAC equipment types to submit supplemental information regarding additional testing instructions, if applicable, and they must also specify which, if any, special features were included to rate a basic model. DOE also requires supplemental testing instructions from manufacturers of commercial warm air furnaces (see 10 CFR 429.41(b)(4)), commercial refrigeration equipment (*see* 10 CFR 429.42(b)(4)), and commercial water heating equipment (*see* 10 CFR 429.44(c)(4)). The supplemental

²² Note that currently 10 CFR 429.53(b)(3) specifies public reporting requirements. In this NOPR, DOE is proposing to revise 10 CFR 429.53(b) such that paragraph (b)(2) specifies public reporting requirements and paragraph (b)(3) specifies non-public reporting requirements.

information submitted in PDF format provides information to allow for third-party laboratories to complete a valid test according to the DOE test procedure.

Consistent with its requirements for other commercial equipment, DOE proposes to require that, if such information would be needed for a third party to independently run a valid test, manufacturers must submit supplemental testing instructions at the time each basic model is certified. Supplemental testing instructions for walk-ins might include (but are not limited to) specific charging instructions, control of fan cycling at specific test conditions, and type of expansion valve. Consistent with the supplemental testing instructions DOE has established for other commercial equipment, DOE notes that any supplemental information for testing walk-ins would need to be consistent with manufacturer installation instructions associated with the equipment under test. *See* section 3.2.6 of appendix C to subpart R of 10 CFR part 431 and section 3.5.2.4 of appendix C1 to subpart R of 10 CFR part 431. Prior to testing any walk-in refrigeration system basic model under its enforcement provisions, DOE would determine if supplemental testing instructions were included with certification of the basic model. If supplemental testing instructions were included with certification, DOE would review these instructions and compare them to the manufacturer's installation instructions. Once DOE has determined that the supplemental instructions are consistent with the manufacturer's installation instructions, DOE would instruct the third-party test lab to incorporate the supplemental testing instructions into its test plan.

DOE notes that manufacturers would 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.

DOE proposes to require that, if necessary to run a valid test, manufacturers must submit supplemental testing instructions at the time each basic model is certified. DOE proposes that manufacturers would be required to comply with the proposed reporting requirement beginning on the next certification report annual filing date required for walk-in components following the publication of this rule, if finalized.

DOE seeks comment on its proposal to require, if necessary to run a valid test, supplemental testing information as a PDF file at the time of certification.

g. Anti-Sweat Heater Wire with Controls

For walk-ins with transparent reach-in doors, EPCA prescribes specific ASH-related requirements: (1) walk-ins without anti-sweat heater controls must have a heater power draw of no more than 7.1 or 3.0 watts per square foot of door opening for freezers and coolers, respectively; (2) walk-ins with anti-sweat heater controls must either have a heater power draw of no more than 7.1 or 3.0 watts per square foot of door opening for freezers and coolers, respectively; or (3) the anti-sweat heater controls must reduce the energy use of the heater in a quantity corresponding to the relative humidity of the air outside the door or to the condensation on the inner glass pane. *See* 42 U.S.C. 6313(f)(3)(C)–(D). These requirements are also codified at 10 CFR 431.306(b)(3)–(4).

The current test procedure assigns percent time off (“PTO”) values to various walk-in door components, including anti-sweat heaters, to reflect the hours in a day that an electricity-consuming device operates at its full rated or certified power. For walk-in cooler doors with ASH controls, the PTO value is 75 percent and for walk-in freezer doors with ASH controls, the PTO value is 50 percent. For doors without ASH controls, the PTO is 0 percent. The test procedure does not distinguish between types of ASH controls, just the presence of them.

DOE recognizes that walk-in coolers and freezers may be installed in a variety of environments, including different geographical climate zones, different indoor building installations, and even outdoor installations. Thus, walk-ins may experience a wide variety of ambient conditions. Consumers looking to purchase walk-in doors with ASH controls may benefit from publicly available information on the conditions at which the ASH is activated based on any controls provided as part of the door.

Additionally, during enforcement testing, DOE calculates the door’s energy consumption using the input power listed on the nameplate of each electricity-consuming device shipped with the door. In the absence of a value listed on the nameplate, DOE uses the device’s rated input power included in the door’s certification report. In the absence of either a nameplate or certified value, DOE may measure the input power for the purposes of calculating a door’s energy consumption. 10 CFR 429.134(q)(4). Manufacturers are required to certify to DOE whether each electricity-consuming device, including ASH, has controls. 10 CFR 429.53(b)(4)(i). If there is no certification for the basic model, it can be difficult to discern whether the unit has controls without destroying the door.

For these reasons, DOE is proposing that manufacturers of doors with ASH controls certify the conditions (*i.e.*, temperature, humidity, etc.) at which the controls activate the ASH wire. DOE proposes that manufacturers would be required to comply with the proposed reporting requirement beginning on the next certification report annual filing date required for walk-in components following the publication of this rule, if finalized.

DOE seeks comment on its proposal to require the reporting of the conditions at which the controls activate the ASH wire for walk-in doors with ASH controls.

h. Door Conduction Load

DOE's test procedure for measuring walk-in door energy consumption accounts for thermal conduction through the door and the direct and indirect electricity use of any electrical components associated with the door. 10 CFR 431.304(b)(1)-(2) and 10 CFR part 431, subpart R, appendix A.

The direct and indirect electricity use of the electrical components associated with the door is based on the certified or nameplate input power values of each component, which are certified to DOE as non-public information. DOE does not, at present, require certification of the thermal conduction through the door.

In this NOPR, DOE is proposing to require certification of thermal conduction load through the door in Btu/h. This would be added to the non-public reporting requirements in 10 CFR 429.53(b)(3)(i). Manufacturers are already calculating conduction load as part of the current test procedure at sections 6.2.1 and 6.3.1 of appendix A to subpart R of 10 CFR part 431 for display doors and non-display doors,

respectively. DOE notes that the conduction load is required for calculating the daily energy consumption. DOE has evaluated the theoretical thermal conduction for all walk-in doors certified to DOE and found in some cases that the calculated values may not be consistent with the values that would be expected based on the currently reported data (*i.e.*, wattage, presence of controls) for the door's electricity-consuming devices. To remedy this situation, DOE is proposing that walk-in door manufacturers certify thermal conduction load as non-public data, in addition to the requirements already listed in 10 CFR 429.53(b)(3)(i). DOE proposes that manufacturers would be required to comply with the proposed reporting requirement beginning on the next certification report annual filing date required for walk-in components following the publication of this rule, if finalized.

DOE requests comment on its proposed additional certification reporting requirements for walk-in doors and refrigeration systems.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to align walk-in certification reporting requirements with the test procedure requirements applicable to walk-ins manufactured on and after October 31, 2023. . For all walk-in doors, manufacturers currently report the door type, R-value of the door insulation, a declaration that the manufacturer has incorporated the applicable design requirements, door energy consumption, rated surface area, rated power of each light, heater wire, and/or other electricity-consuming device and whether such device(s) has a timer, control system, or other demand-based control that reduces the device's power consumption. For transparent reach-in display doors and windows, manufacturers must currently also report the glass type of the doors and windows), and the power draw of the ASH.

Manufacturers would additionally report the conduction load through the door, whether the basic model uses self-regulating heater wire, and, if so, specify the temperature at which the wire engages if the proposed amendments are adopted.

For walk-in refrigeration systems, manufacturers currently report the installed motor's function purpose (*i.e.*, evaporator fan motor or condenser fan motor), its rated horsepower, a declaration that the manufacturer has incorporated the applicable walk-in-specific design requirements into the motor, AWEF, net capacity, the configuration tested for certification (*e.g.*, condensing unit only, unit cooler only, single-packaged dedicated system, or matched pair), and if an indoor dedicated condensing unit is also certified as an outdoor dedicated condensing unit (and, if so, the basic model number for the outdoor dedicated condensing unit). If the proposed amendments are adopted manufacturers would additionally report whether the basic model is designed for use with CO₂ as a refrigerant, whether a dedicated condensing system has flooded head pressure control, and whether a compressor break-in period was used, and if so, the duration of the break-in period. Additionally, manufacturers would be required to submit supplemental testing instructions in PDF format if these instructions are necessary to run a valid test. DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers because manufacturers of walk-ins are already submitting certification reports to DOE and should have readily available the information that DOE is proposing to collect as part of this rulemaking. DOE does not believe the revised reporting requirements will cause any appreciable change in reporting burden or hours as compared to what walk-in manufacturers are currently doing today.

DOE requests comment on the certification reporting costs of the amendments proposed for walk-ins.

3. Labeling

If the Secretary has prescribed test procedures for any class of covered equipment, a labeling rule applicable to such class of covered equipment must be prescribed. *See* 42 U.S.C. 6315(a). EPCA, however, also sets out certain criteria that must be met prior to prescribing a given labeling rule. Specifically, to establish these requirements, DOE must determine that: (1) labeling in accordance with section 6315 is technologically and economically feasible with respect to any equipment class; (2) significant energy savings will likely result from such labeling; and (3) labeling in accordance with section 6315 is likely to assist consumers in making purchasing decisions. (*See* 42 U.S.C. 6315(h))

If these criteria are met, EPCA specifies certain aspects of equipment labeling that DOE must consider in any rulemaking establishing labeling requirements for covered equipment. At a minimum, such labels must include the energy efficiency of the affected equipment as tested under the prescribed DOE test procedure. The labeling provisions may also consider the addition of other requirements, including: (1) directions for the display of the label; (2) a requirement to display on the label additional information related to energy efficiency or energy consumption, which may include instructions for maintenance and repair of the covered equipment, as necessary, to provide adequate information to purchasers; and (3) requirements that printed matter displayed or distributed with the equipment at the point of sale also include the information required to be placed on the label. (42 U.S.C. 6315(b) and 42 U.S.C. 6315(c))

DOE previously established labeling requirements for walk-in components, codified at 10 CFR 431.305, in a final rule published on December 28, 2016 (“December 2016 Walk-in Final Rule”). 81 FR 95758, 95802. For walk-in panels, DOE had initially proposed in the NOPR leading to the aforementioned final rule to include the date of manufacture on the nameplate of a panel. 81 FR 54925, 54942 (Aug. 17, 2016). At the time, DOE estimated the total cost of applying labels specifically to non-display doors and panels, which may include date of manufacture, to be less than 0.1 percent of an average manufacturer’s annual revenue. *Id.* In consideration of stakeholder comments indicating that affixing a panel label with date of manufacture was not technologically feasible, in the December 2016 walk-in Final Rule, DOE did not finalize its proposal to require the date of manufacture on the nameplate. 81 FR 95758, 95802.

In this NOPR, DOE is again proposing to require that date of manufacture be affixed to each walk-in panel via the nameplate or via another method (*i.e.*, stamping) at 10 CFR 431.305(a)(1)(ii). DOE has found that date of manufacture is often included on the nameplate or stamped elsewhere on walk-in panels, indicating that it is not overly burdensome to include and is technologically feasible.

Additionally, In the May 2023 Walk-Ins TP Final Rule, DOE added test provisions for CO₂ unit coolers. 88 FR 28780,28809. To easily determine which walk-in units these test provisions apply to, DOE defined CO₂ unit coolers as “unit coolers that includes a nameplate listing only CO₂ as an approved refrigerant”. 88 FR 28780, 28790. Based on walk-in units previously tested by DOE, DOE expects that most manufacturers are already including a refrigerant indication on the labels of walk-in unit coolers. Additionally, as discussed in the May 2023 Walk-ins TP Final Rule, manufacturers supported the finalized definition for CO₂ unit coolers, including

the language regarding the nameplates. *Id.* As such, DOE has therefore tentatively concluded that it would not be burdensome for manufacturers to label unit coolers designed for use with CO₂ as a refrigerant. Additionally, DOE has consulted with the FTC, and they had no comments on the proposal. Therefore, in this NOPR DOE is proposing that unit coolers designed to be used with CO₂ as a refrigerant include the statement “Only CO₂ is approved as a refrigerant for this system” on the unit nameplate.

DOE requests comment on its proposal to require that date of manufacture be included on a panel nameplate, including its tentative conclusion that this would be technologically feasible and would not be burdensome to include. DOE also requests comment on its proposal to require CO₂ unit coolers be labeled with the statement “Only CO₂ is approved as a refrigerant for this system”, including its tentative conclusion that this would not be burdensome to include.

4. Labeling Costs and Impact

Labelling requirements for panels are codified at 10 CFR 431.305(a). Since manufacturers are already required to apply a permanent nameplate to walk-in panels, DOE is assuming that there would be no additional cost to the nameplate material or nameplate application if DOE were to finalize its proposal to include date of manufacturer on the panel nameplate. However, DOE recognizes that manufacturers may need to make changes to panel nameplates to include date of manufacture.

DOE is assuming that the date of manufacturer would be automatically etched or printed on each nameplate and that there would be a one-time cost for

programming date of manufacturer into the nameplate printing software. DOE estimates that it would take an electrical engineer a maximum of 8 hours to configure the nameplate printing software. The current fully burdened wage for an electrical engineer is \$69.97,²³ resulting in an estimated one-time cost per manufacturer of \$560 to include date of manufacture on panel nameplates.

DOE is assuming that the statement “Only CO₂ is approved as a refrigerant for this system” would be automatically etched or printed on each nameplate and that there would be a one-time cost for programming date of manufacturer into the nameplate printing software. DOE estimates that it would take an electrical engineer a maximum of 8 hours to configure the nameplate printing software. The current fully burdened wage for an electrical engineer is \$69.97,²⁴ resulting in an estimated one-time cost per manufacturer of \$560 to this statement on CO₂ unit cooler nameplates for those manufacturers that would need to make this update to their nameplates. As previously noted, DOE expects that many manufacturers have already done so.

²³ DOE estimated the hourly wage using data from BLS’s “Occupational Employment and Wages, May 2022” publication. DOE used the “Electrical Engineers” mean hourly wage of \$48.28 to estimate the hourly wage rate (www.bls.gov/oes/current/oes172071.htm). DOE then used BLS’s “Employer Costs for Employee Compensation—June 2022” to estimate that wages and salary account for approximately 69 percent for private industry workers. (www.bls.gov/news.release/pdf/ecec.pdf last accessed on December 1, 2022). Therefore, DOE estimated a fully burdened labor rate of \$69.97 ($\$48.28 \div 0.69 = \69.97).

²⁴ DOE estimated the hourly wage using data from BLS’s “Occupational Employment and Wages, May 2022” publication. DOE used the “Electrical Engineers” mean hourly wage of \$48.28 to estimate the hourly wage rate (www.bls.gov/oes/current/oes172071.htm). DOE then used BLS’s “Employer Costs for Employee Compensation—June 2022” to estimate that wages and salary account for approximately 69 percent for private industry workers. (www.bls.gov/news.release/pdf/ecec.pdf last accessed on December 1, 2022). Therefore, DOE estimated a fully burdened labor rate of \$69.97 ($\$48.28 \div 0.69 = \69.97).

N. Commercial and Industrial Pumps

DOE is proposing to amend the reporting requirements for commercial and industrial pumps, which DOE defines as equipment designed to move liquids (which may include dissolved gases, free solids, and totally dissolved solids) by physical or mechanical action. A pump includes a bare pump and, if included by the manufacturer at the time of sale, mechanical equipment, driver, and controls. 10 CFR 431.462. DOE is proposing amendments to the reporting requirements for commercial and industrial pumps in this NOPR.

1. Reporting

Under the existing requirements in 10 CFR 429.59(b)(2) and (b)(4), manufacturers must report the following as determined according to the DOE test procedure at appendix A to subpart Y of 10 CFR part 431:

- For section III: the constant load pump energy index (“PEICL”), the nominal speed of rotation in revolutions per minute (“rpm”), pump total head in feet at BEP and nominal speed, volume per unit time (“flow rate”) in gallons per minute (“gpm”) at BEP and nominal speed, calculated driver power input at each load point corrected to nominal speed, in horsepower (“hp”), full impeller diameter in inches (“in”), and for radially split, multi-stage, vertical, in-line diffuser casing (“RSV”) pumps and submersible turbine (“ST”) pumps, the number of stages tested. 10 CFR 429.59(b)(2)(i).
- For section IV: all the above in addition to whether the PEICL is calculated or tested. 10 CFR 429.59(b)(2)(ii).

- For section V: variable load pump energy index (“PEIVL”) instead of PEICL, driver power input measured as the input power to the driver and controls at each load point corrected to nominal speed, in hp, and whether PEIVL is calculated or tested. 10 CFR 429.59(b)(2)(iii)

These requirements provide for certifying compliance with the standards for commercial and industrial pumps manufactured on or after January 27, 2020. Under the existing requirements in 10 CFR 429.59(b)(3), manufacturers have the option to report pump efficiency at BEP in percent and PER_{CL} (for constant load pumps) or pump efficiency at BEP in percent and PER_{VL} (for variable load pumps), as determined according to appendix A to subpart Y of 10 CFR part 431.

In this NOPR, DOE is proposing to require certification of pump efficiency at BEP in percent, PER_{CL} , and PER_{VL} —these metrics would be added to the existing reporting requirements in 10 CFR 429.59(b)(2). DOE is also proposing that manufacturers would be required to comply with the proposed reporting requirement beginning on the next certification report annual filing date required for commercial and industrial pumps following the publication of this rule, if finalized.

Pump efficiency at BEP, PER_{CL} , and PER_{VL} are required for calculating PEI_{CL} or PEI_{VL} . Some manufacturers are already reporting pump efficiency at BEP, PER_{CL} , and/or PER_{VL} , and these metrics are already calculated in appendix A to subpart Y of 10 CFR part 431. This reporting requirement would standardize the information reported to DOE by different pump manufacturers. In addition, having these metrics available in DOE’s compliance certification database would provide pump end users with greater insight into pump operation at part load conditions.

DOE seeks comment on its proposal to require certification of pump efficiency at BEP in percent, constant load pump energy rating (“PER_{CL}”), and variable load pump energy rating (“PER_{VL}”).

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to amend the reporting requirements for commercial and industrial pumps.

For commercial and industrial pumps subject to the test methods prescribed in section III of appendix A to subpart Y of 10 CFR part 431, manufacturers must currently report the following: (1) PEI_{CL}; (2) the nominal speed of rotation in rpm; (3) pump total head in feet at BEP and nominal speed; (4) volume per unit time (flow rate) in gpm at BEP and nominal speed; (5) calculated driver power input at each load point *i*, corrected to nominal speed in hp; (6) full impeller diameter in inches; and (6) for RSV and ST pumps, the number of stages tested. Manufacturers would additionally report the pump efficiency at BEP in percent and PER_{CL} for all pumps if the proposed amendments are adopted.

For pumps subject to the test methods prescribed in section IV or section V of appendix A to subpart Y of 10 CFR part 431, manufacturers currently report the following: (1) PEI_{CL}; (2) the nominal speed of rotation in rpm; (3) pump total head in feet at BEP and nominal speed; (4) volume per unit time (flow rate) in gallons per minute at BEP and nominal speed; (5) driver power input at each load point *i*, corrected to nominal speed in hp; (6) full impeller diameter in inches; (7) whether the

PEI_{CL} is calculated or tested; and (8) for RSV and ST pumps, the number of stages tested. Manufacturers would additionally report pump efficiency at BEP in percent and PER_{CL} for all pumps if the proposed amendments are adopted.

For pumps subject to the test methods prescribed in section VI or VII of appendix A to subpart Y of 10 CFR part 431, manufacturers currently report the following: (1) PEI_{VL}; (2) the nominal speed of rotation in rpm; (3) pump total head in feet at BEP and nominal speed; (4) volume per unit time (flow rate) in gpm at BEP and nominal speed; (5) driver power input (measured as the input power to the driver and controls) at each load point *i*, corrected to nominal speed in hp; (6) full impeller diameter in inches; (7) whether the PEI_{VL} is calculated or tested; and (8) for RSH and ST pumps, the number of stages tested. Manufacturers would additionally report pump efficiency at BEP in percent and PER_{VL} for all pumps if the proposed amendments are adopted.

DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers because manufacturers of commercial and industrial pumps are already submitting certification reports to DOE and should have readily available the information that DOE is proposing to collect as part of this rulemaking. DOE does not believe the revised reporting requirements will cause any appreciable change in reporting burden or hours as compared to what commercial and industrial pumps manufacturers are currently doing today.

DOE requests comment on the certification reporting costs of the amendments proposed for commercial and industrial pumps.

O. Portable Air Conditioners

DOE is proposing to amend the reporting requirements for portable ACs, which DOE defines as a consumer product that consists of a portable encased assembly, other than a “packaged terminal air conditioner,” “room air conditioner,” or “dehumidifier,” that delivers cooled, conditioned air to an enclosed space, and is powered by single-phase electric current. 10 CFR 430.2. In the portable AC test procedure final rule published on May 15, 2023 (“May 2023 Portable AC Final Rule”), DOE amended the test procedures for portable ACs at appendix CC to subpart B of 10 CFR part 430 (“appendix CC”) to incorporate a measure of variable-speed portable AC performance and make minor clarifying edits. 88 FR 31102. Consistent with that final rule, DOE is proposing amendments to the reporting requirements.

1. Reporting

The current reporting requirements for portable ACs at 10 CFR 429.62 include the following: (1) the combined energy efficiency ratio (“CEER”) in Btu/Wh; (2) the seasonally adjusted cooling capacity (“SACC”) in Btu/h; (3) the duct configuration (*i.e.*, single-duct, dual-duct, or ability to operate in both configurations); (4) presence of heating function; and (5) primary condensate removal feature (*i.e.*, auto-evaporation, gravity drain, removable internal collection bucket, or condensate pump). 10 CFR 429.62. These requirements provide for certifying compliance with the standards that will go into effect for single-duct and dual-duct portable ACs that are manufactured on or after January 10, 2025. DOE is proposing to update these requirements and align the reporting requirements with the recent test procedure amendments and is also proposing general certification requirements for portable ACs. DOE discusses these proposed updates in the sections as follows.

a. Duct-Configuration

DOE defines two portable AC configurations: single-duct and dual-duct.

Single-duct portable ACs draw all the condenser inlet air from the conditioned space without the means of a duct and discharge the condenser outlet air outside the conditioned space through a single duct attached to an adjustable window bracket.

Dual-duct portable ACs draw some or all the condenser inlet air from outside the conditioned space through a duct attached to an adjustable window bracket, may draw additional condenser inlet air from the conditioned space, and discharge the condenser outlet air outside the conditioned space by means of a separate duct attached to an adjustable window bracket. *Id.*

The current test procedure for portable ACs, found in appendix CC, notes that if a portable AC is able to operate as both a single-duct and dual-duct portable AC as distributed in commerce by the manufacturer, it must be tested and rated for both duct configurations. Section 3.1.1 in appendix CC.

Similarly, in 10 CFR 429.62(a)(5), DOE states that single-duct and dual-duct portable ACs distributed in commerce by the manufacturer with multiple duct configuration options that meet DOE's definitions for single-duct portable AC and dual-duct portable AC, must be rated and certified under both applicable duct configurations.

Under the existing certification reporting requirements in 10 CFR 429.62(b)(2), manufacturers of portable ACs must report the following: (1) the CEER in Btu/Wh; (2) the SACC in Btu/h; (3) the duct configuration (*i.e.*, single-duct, dual-duct, or ability to operate in both configurations); (4) presence of heating function;

and (5) primary condensate removal feature (*i.e.*, auto-evaporation, gravity drain, removable internal collection bucket, or condensate pump).

DOE is proposing to include clarifying amendments to these reporting requirements to specify that each certification report must include an indication of the duct configuration used for testing (*i.e.*, single-duct or dual-duct) and whether the certified model is distributed in commerce by the manufacturer with multiple duct configuration options that meet DOE's definitions for single-duct portable AC and dual-duct portable AC (*i.e.*, yes or no).

DOE requests comment on the clarifying amendments to 10 CFR 429.62(b)(2) to better represent the intent of the instruction in appendix CC and 10 CFR 429.62(a)(5).

b. Full-Load Seasonally Adjusted Cooling Capacity

In the May 2023 Portable AC Final Rule, DOE amended the appendix CC test procedures to include a new capacity metric for variable-speed portable ACs, full-load seasonally adjusted cooling capacity ("SACC_{Full}"), for purposes of representation and certification. 88 FR 31102, 31112 - 31114. Consistent with that final rule, DOE is proposing to amend the certification report requirements by proposing a new section, 10 CFR 429.62(b)(3), to require reporting whether a basic model is variable-speed, as defined in appendix CC, and if so, to report the SACC_{Full}, in Btu/h.

DOE seeks comment on requiring whether a basic model is variable-speed, and if so, to report the SACC_{Full}, in Btu/h.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to align portable AC certification reporting requirements with the May 2023 Portable AC TP Final Rule requirements applicable to portable ACs manufactured on and after the June 14, 2023.

For variable-speed portable ACs tested in accordance with appendix CC as amended in the May 2023 Portable AC TP Final Rule, manufacturers currently report combined energy efficiency ratio, seasonally adjusted cooling capacity, the duct configuration, presence of heating function, and primary condensate removal feature, and would additionally report full-load seasonally adjusted cooling capacity if the proposed amendments are adopted.

DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers beyond those that were estimated in the January 2020 Portable ACs ECS Final Rule, which first established the reporting requirements. 85 FR 1378. This is because manufacturers of portable ACs should already be collecting the information required for the current certification requirements and should have readily available the information that DOE is proposing to collect as part of this rulemaking. DOE does not believe the revised reporting requirements will cause any appreciable change in reporting burden or hours as compared to what was estimated in the January 2020 Portable ACs ECS Final Rule.

DOE requests comment on the certification reporting costs of the amendments proposed for portable ACs.

P. Compressors

DOE is proposing to amend the reporting requirements for compressors, which DOE defines as machines or apparatuses that convert different types of energy into the potential energy of gas pressure for displacement and compression of gaseous media to any higher pressure values above atmospheric pressure and have a pressure ratio at full-load operating pressure greater than 1.3. 10 CFR 431.342.

1. Reporting

Under the existing requirements in 10 CFR 429.63(b), a certification report must include the following public product-specific information for all compressors: (1) full-load package isentropic efficiency or part-load package isentropic efficiency, as applicable (dimensionless); (2) full-load actual volume flow rate (in cubic feet per minute); (3) compressor motor nominal horsepower (in horsepower); (4) full-load operating pressure (in pounds per square inch, gauge); (5) maximum full-flow operating pressure (in pounds per square inch, gauge); and (6) pressure ratio at full-load operating pressure (dimensionless). 10 CFR 429.63(b)(i)-(vi).

In addition, for any ancillary equipment that is installed for test, but is not part of the compressor package as distributed in commerce (per the requirements of 10 CFR part 431, subpart T, appendix A, section I(B)(4)), a certification report must include the following public product-specific information: (1) a general description of the ancillary equipment, based on the list provided in the first column of Table 1 of 10 CFR part 431, subpart T, appendix A, section I(B)(4); (2) the manufacturer of the ancillary equipment; (3) the brand of the ancillary equipment (if different from the manufacturer); (4) the model number of the ancillary equipment; (5) the serial number of the ancillary equipment (if applicable); (6) input voltage (if applicable); (7) number

of phases (if applicable); (8) input frequency (if applicable); (9) size of any connections (if applicable); and (10) type of any connections (if applicable). 10 CFR 429.63(b)(vii)(A)-(G). A certification report must also include installation instructions for the ancillary equipment, accompanied by photos that clearly illustrate the ancillary equipment, as installed on compressor package, in a PDF. 10 CFR 429.63(b)(vii)(H).

DOE notes that 10 CFR 429.12(a) states that basic models of covered products require annual filings on or before the dates provided in 10 CFR 429.12(d), but paragraph (d) does not specifically list an annual filing date for compressors. In light of this omission, DOE proposes to explicitly specify in 10 CFR 429.12(d) that compressors should be recertified annually on or before September 1. Because the energy conservation standards for compressors do not take effect until January 10, 2025, this annual reporting requirement would not be in effect until the applicable energy conservation standards are in effect.

DOE seeks comment on the proposed annual filing date of September 1 for compressors.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes no changes to the reported information required for compressors when certifying compliance with the standards applicable to compressors manufactured on or after January 10, 2025. DOE only proposes to specify the annual date by which manufacturers must submit annual certification filings to DOE after the applicable standards take effect. DOE has tentatively determined that the proposed amendment would not impose additional costs for

manufacturers because no amendments to the certification report contents are being proposed in this NOPR. DOE does not believe the revised reporting requirements would cause any appreciable change in reporting burden or hours as compared to what compressor manufacturers will begin doing prior to the January 10, 2025 compliance date.

DOE requests comment on the proposed annual filing date for compressors and any corresponding certification and reporting costs.

Q. Dedicated-Purpose Pool Pump Motors

DOE is proposing to establish reporting requirements for DPPPMs, which are electric motors that are single-phase or polyphase and are designed and/or marketed for use in dedicated-purpose pool pump (“DPPP”) applications, as defined in sections 1.2, 1.3, and 1.4 of UL 1004-10:2020. 10 CFR 431.483. In the NOPR published on June 21, 2022 (“June 2022 DPPPM NOPR”), DOE proposed to establish energy conservation standards for DPPPMs. 87 FR 37122. Consistent with that notice of proposed rulemaking, DOE is proposing amendments to the reporting requirements.

1. Reporting

There are currently no reporting requirements for DPPPMs. The June 2022 DPPPM NOPR proposed to establish new energy conservation standards for DPPPM. Therefore, DOE is proposing to align the reporting requirements with the standards and proposing general certification requirements for DPPPM. DOE discusses these proposed updates in the sections as follows.

a. Motor Total Horsepower, Full-Load Efficiency, and Design Requirements

In the June 2022 DPPPM NOPR, DOE proposed performance standards (*i.e.*, full load efficiency) and design requirements (*i.e.*, speed capability) based on DPPPM total horsepower (“THP”). 87 FR 37122, 37123-37124. DOE proposed that the standards, if adopted, would apply to all DPPPMs manufactured in, or imported into, the United States starting on the date 2 years (or 24 months) after the publication of the final rule for the proposed rulemaking.

Further, for DPPPMs greater than or equal to 0.5 THP, DOE proposed that DPPPMs with freeze protection controls be shipped with the freeze protection feature disabled, or with the following default, user-adjustable settings: (a) the default dry-bulb air temperature setting shall be no greater than 40 °F; (b) the default run time setting shall be no greater than 1 hour (before the temperature is rechecked); and (c) the default motor speed in freeze protection mode shall not be more than half of the maximum operating speed. 87 FR 37122, 37124. Table III.1 provides the proposed energy conservation standards.

Table III.1 June 2022 DPPPM NOPR Proposed Energy Conservation Standards for Dedicated Purpose Pool Pump Motors

Motor Total Horsepower (THP)	Performance Standard: Full-load efficiency (%)	Design Requirement: Speed Capability	Design Requirement: Freeze Protection
THP < 0.5	69%	None	None
$0.5 \leq \text{THP} < 1.15$	-	Variable speed control	Only for DPPP motors with freeze protection controls
$1.15 \leq \text{THP} \leq 5$	-	Variable speed control	Only for DPPP motors with freeze protection controls

As such, in this NOPR, DOE proposes to update the reporting requirements to include product-specific information that would be required to certify compliance with any newly established energy conservation standards. Accordingly, DOE proposes reporting the DPPPM THP, as the THP is required to determine whether the DPPPM would need to meet either a performance standard or design requirements. DOE proposes that the represented value of THP should be determined as required at 10 CFR 429.65(c)(1)(v).

For DPPPMs less than 0.5 THP, DOE proposes reporting the performance standard in terms of full load efficiency. DOE proposes using the test procedure in 10 CFR 431.484 to determine full-load efficiency, and to report the represented value of THP as required at 10 CFR 429.65(c)(1)(v).

For DPPPMs greater than or equal to 0.5 THP, DOE proposes reporting the design requirements as follows:

- (1) A statement confirming that the DPPPM is variable speed (as defined at 10 CFR 431.483); and
- (2) A statement regarding whether freeze protection is shipped enabled or disabled; for DPPPMs distributed in commerce with freeze protection controls enabled, DOE proposes reporting the default dry-bulb air temperature setting (in °F), default run time setting (in minutes), maximum operating speed (in revolutions per minute, or rpm), and default motor speed in freeze protection mode (in revolutions per minute, or rpm).

Regarding general certification requirements, DOE proposes that annual filing for DPPPMP shall be submitted on or before September 1. Further, DOE also proposes that the requirements in 10 CFR 429.12 regarding certification apply to DPPPMPs.

DOE seeks comment on the proposed reporting requirements for DPPPMPs.

b. Rounding Requirements

DOE proposes to specify rounding requirements for values required to determine compliance with the proposed energy conservation standards. Specifically, DOE proposes that manufacturers round DPPPMP THP to the nearest hundredth of THP, consistent with industry practice. Further, DOE proposes that manufacturers round full load efficiency, expressed in percentage, to the nearest tenth of a percent. This is consistent with how the full load efficiency of an electric motor is expressed at 10 CFR 431.25 and 10 CFR 431.446, and these electric motors share test methods with DPPPMPs. Finally, for DPPPMP basic models with THPs greater than or equal to 0.5 THP and distributed in commerce with freeze protection controls enabled, DOE proposes to round the dry-bulb temperature setting (expressed in °F) run time setting (expressed in minutes), maximum operating speed (expressed in rpm), and default motor speed in freeze protection mode (expressed in rpm) to the nearest whole number. This is consistent with how dry-bulb temperature is expressed in 10 CFR 431.465(h)(1).

DOE seeks comment on the proposed rounding requirements for DPPPMPs.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to align DPPPMM certification reporting requirements with the proposed energy conservation standard requirements applicable to DPPPMMs manufactured starting on the date 2 years (24 months) after the date of final rule publication of the energy conservation standard in the *Federal Register*.

The addition of the proposed reporting requirements for DPPPMMs would newly require manufacturers to report performance characteristics of these motors. For DPPPMMs less than 0.5 THP, full-load efficiency would need to be reported in addition to THP, and for DPPPMMs greater than or equal to 0.5 THP, freeze protection status and speed control capability would need to be reported in addition to THP. DOE has tentatively concluded that these proposed changes would impose additional cost to manufacturers and importers. The costs associated with these changes are described in further detail in section IV.C of this document.

DOE requests comment on the certification reporting costs of the proposed new reporting requirements for DPPPMMs.

R. Air Cleaners

DOE is proposing to establish reporting requirements for air cleaners, which DOE defines as a product for improving indoor air quality, other than a central air conditioner, room air conditioner, portable air conditioner, dehumidifier, or furnace, that is an electrically-powered, self-contained, mechanically encased assembly that contains means to remove, destroy, or deactivate particulates, VOCs, and/or microorganisms from the air. It excludes products that operate solely by means of ultraviolet light without a fan for air circulation. 10 CFR 430.2. In a direct final rule

published on April 11, 2023 (“April 2023 Air Cleaners DFR”), DOE established new energy conservation standards for air cleaners. 88 FR 21752. Consistent with that direct final rule, DOE is proposing to establish new reporting requirements for air cleaners.

1. Reporting

There are currently no reporting requirements for air cleaners. The April 2023 Air Cleaners DFR established new energy conservation standards for air cleaners. 88 FR 21752. In the April 2023 Air Cleaners DFR, DOE established energy conservation standards based on integrated energy factor (“IEF”), which is determined as the clean air delivery rate (“CADR”) ²⁵ of an air cleaner expressed in terms of PM_{2.5}²⁶ CADR divided by the annual energy consumption divided by the annual active mode hours. 88 FR 21752, 27153-21754. PM_{2.5} CADR is calculated as the geometric mean of smoke CADR and dust CADR. 88 FR 21752, 21762.

Therefore, DOE is proposing to align the reporting requirements with the standards and proposing general certification requirements for air cleaners. DOE discusses these proposed updates in the following paragraphs.

DOE proposes to establish reporting requirements for air cleaners at 10 CFR 429.68(b) to include product-specific information that would be required to certify

²⁵ Section 3.14 of the industry standard AHAM AC-1-2020 defines CADR as the measure of the delivery of contaminant free air, within a defined particle size range, by an air cleaner, expressed in cubic feet per minute (“cfm”). CADR is the rate of contaminant reduction in the test chamber when the air cleaner is turned on, minus the rate of natural decay when the air cleaner is not running, multiplied by the volume of the test chamber as measured in cubic feet. Note: CADR values are always the measurement of an air cleaner performance as a complete system and have no linear relationship to the air movement per se or to the characteristics of any particle removal methodology.

²⁶ 10 CFR part 430 Appendix FF defines PM_{2.5} via reference to the industry standard AHAM AC-7-2022, which defines it as particulate matter that are nominally 2.5 micrometers (“µm”) in width or smaller.

compliance with the newly established energy conservation standards. DOE proposes that parties must report the smoke CADR, dust CADR, and PM_{2.5} CADR in cfm; annual energy consumption in kWh/yr; and, IEF in PM_{2.5} CADR per watt. DOE is proposing reporting requirements for smoke CADR and dust CADR because these values are used to determine PM_{2.5} CADR.

Additionally, in a test procedure final rule published on March 6, 2023 (March 2023 Air Cleaners TP Final Rule), DOE established requirements for determining pollen CADR and effective room size. 88 FR 14014, 14016. In the March 2023 Air Cleaners TP Final Rule, DOE noted that many air cleaners are marketed as providing pollen removal and the ENERGY STAR specification for air cleaners also requires reporting of pollen CADR. DOE stated that it is important that any representation related to an air cleaner's pollen CADR performance be made based on testing conducted in a repeatable and representative manner. 88 FR 14014, 14034. Accordingly, in the March 2023 Air Cleaners TP Final Rule, DOE referenced the AHAM AC-1-2020 standard to conduct a test to measure pollen CADR. 88 FR 14014, 14035. While DOE has not established any energy conservation standards for pollen, DOE is proposing to include a reporting requirement for pollen CADR in this NOPR to ensure that consumers have reliable information when making purchasing decisions.

Additionally, in the March 2023 Air Cleaners TP Final Rule, DOE established a metric for effective room size because room size would strongly impact the capacity of the air cleaner that would be required to clean the air in the desired room. 88 FR 14014, 14036 and 14038. While DOE has not established any standards pertaining to room size, DOE is proposing to include a reporting requirement for effective room

size, in square feet, to ensure consumers have reliable information when making purchasing decisions.

Regarding general certification requirements, DOE proposes that the annual filing for air cleaners shall be submitted on or before December 1. Further, DOE also proposes that the requirements in 10 CFR 429.12 regarding certification apply to air cleaners. Finally, DOE proposes to add a new paragraph (i)(6) in 10 CFR 429.12 to note the compliance date for air cleaners is December 31, 2023.

DOE requests comment on the proposed reporting requirements for air cleaners.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to align air cleaner certification reporting requirements with the energy conservation standard requirements established in the April 2023 Air Cleaners DFR, such that the reporting requirements are applicable to air cleaners manufactured on and after December 31, 2023.

The addition of the proposed reporting requirements for air cleaners would newly require manufacturers to report this information. DOE has tentatively concluded that these proposed reporting requirements would impose additional cost to manufacturers and importers. The costs associated with these changes are described in further detail in section IV.C of this document.

DOE requests comment on the certification reporting costs of the proposed new reporting requirements for air cleaners.

S. Single Package Vertical Units

DOE is proposing to amend the reporting requirements for single package vertical air conditioners (“SPVACs”) and single package vertical heat pumps (“SPVHPs”), collectively referred to as “single package vertical units” (“SPVUs”).

DOE defines an SPVAC as air-cooled commercial package air conditioning and heating equipment that: (1) is factory-assembled as a single package that: (i) has major components that are arranged vertically; (ii) is an encased combination of cooling and optional heating components; and (iii) is intended for exterior mounting on, adjacent interior to, or through an outside wall; (2) is powered by a single-phase or three-phase current; (3) may contain one or more separate indoor grilles, outdoor louvers, various ventilation options, indoor free air discharges, ductwork, well plenum, or sleeves; and (4) has heating components that may include electrical resistance, steam, hot water, or gas, but may not include reverse cycle refrigeration as a heating means. 10 CFR 431.92. Additionally, DOE defines an SPVHP as a single package vertical air conditioner that: (1) uses reverse cycle refrigeration as its primary heat source; and (2) may include secondary supplemental heating by means of electrical resistance, steam, hot water, or gas. *Id.*

In a test procedure final rule published in the *Federal Register* on December 7, 2022 (“December 2022 SPVU TP final rule”), DOE added definitions for “single-phase single package vertical air conditioner with cooling capacity less than 65,000 Btu/h” and “single-phase single package vertical heat pump with cooling capacity less than 65,000 Btu/h.” 87 FR 75144, 75167-75168; 10 CFR 431.92. DOE defines this equipment as SPVAC and SPVHP that are either: (1) weatherized, or (2) non-weatherized and have optional ventilation air provisions available with the ability to

draw in and condition a minimum of 400 CFM of outdoor air, as determined in accordance with 10 CFR 429.134(x)(3), while the equipment is operating with the same drive kit and motor settings used to determine the certified efficiency rating of the equipment. *Id.*

The Federal test procedures are applicable to SPVUs with a cooling capacity less than 760,000 Btu/h. (42 U.S.C. 6311(8)(D)(ii)) In the December 2022 SPVU TP final rule, DOE incorporated by reference AHRI 390-2021 which maintains the existing efficiency metrics—energy efficiency ratio (“EER”) for cooling mode and coefficient of performance (“COP”) for heating mode—but it also added a seasonal efficiency metric that includes part-load cooling performance—integrated energy efficiency ratio (“IEER”). 87 FR 75144, 75167-75170 (Dec. 7, 2022). In an energy conservation standards NOPR published in the *Federal Register* on December 8, 2022 (“December 2022 SPVU ECS NOPR”), DOE proposed to amend the energy conservation standards for SPVUs to be based on the IEER metric for cooling efficiency (while retaining the COP metric for determining the heating efficiency of SPVHPs). 87 FR 75388, 75421. Consistent with the December 2022 SPVU TP final rule and the December 2022 SPVU ECS NOPR, DOE is proposing amendments to the reporting requirements for SPVUs that would be utilized with energy conservation standards denominated in terms of IEER, should DOE adopt such standards.

1. Reporting

Under the existing requirements for SPVACs and SPVHPs in 10 CFR 429.43(b)(2)(v) and 10 CFR 429.43(b)(2)(vi), respectively, manufacturers must report the following information for SPVACs and SPVHPs: the energy efficiency ratio (EER in British thermal units per Watt-hour (Btu/Wh)) and the rated cooling capacity in

British thermal units per hour (Btu/h). For SPVHPs, manufacturers must additionally report the coefficient of performance (COP).

These requirements provide for certifying compliance with the applicable standards for SPVUs manufactured on and after September 23, 2019 for units with cooling capacity <65,000 Btu/h, on and after October 9, 2015 for units $\geq$ 65,000 Btu/h and <135,000 Btu/h, and on and after October 9, 2016 for units $\geq$ 135,000 Btu/h and <240,000 Btu/h. These energy conservation standards for SPVUs are codified in DOE's regulations at 10 CFR 431.97(d)(3). DOE is proposing to update these requirements and align the reporting requirements with the amended energy conservation standards proposed in the December 2022 SPVU ECS NOPR. DOE discusses these proposed updates in the sections as follows.

a. Revising certification reporting requirements at 10 CFR 429.43(b)(2)(v) and 10 CFR 429.43(b)(2)(vi) when certifying SPVUs of all rated capacities with IEER standards.

SPVU manufacturers are currently required to certify compliance with EER and, for SPVHPs, also COP standards, in addition to the other reported items mentioned previously. In this NOPR, DOE is proposing certification requirements when certifying compliance of SPVUs of all rated capacities with IEER standards, should such standards be adopted. Specifically, DOE proposes to include the following at 10 CFR 429.43(b)(2)(v)(B) and (b)(2)(vi)(B) when certifying compliance an IEER standard: the integrated energy efficiency ratio (IEER in British thermal units per Watt-hour (Btu/Wh)), the rated cooling capacity in British thermal units per hour (Btu/h), and the rated airflow in standard cubic feet per minute (SCFM).

Additionally, DOE proposes to include a requirement to certify the coefficient of performance (COP) for SPVHPs at 10 CFR 429.43(b)(2)(vi)(B). DOE also proposes to move the existing text in 10 CFR 429.43(b)(2)(v) and 10 CFR 429.43(b)(2)(vi) to sections 10 CFR 429.43(b)(2)(v)(A) and 10 CFR 429.43(b)(2)(vi)(A), respectively.

DOE seeks comment on its proposed certification requirements for SPVUs of all rated capacities when certifying compliance with IEER standards.

b. Additional certification reporting requirements for SPVUs with a cooling capacity <65,000 Btu/h

As discussed previously, DOE added definitions at 10 CFR 431.92 for single-phase SPVACs and SPVHPs with a cooling capacity less than 65,000 Btu/h. For non-weatherized equipment, the definition requires these SPVUs to have the capability to draw in and condition up to 400 CFM of outdoor air. The method for determining this outdoor ventilation airflow rate is provided at 10 CFR 429.134(x)(3). DOE is proposing to require single-phase SPVAC and SPVHP with cooling capacity less than 65,000 Btu/h to report whether the unit is weatherized or non-weatherized, and if non-weatherized, the amount of outdoor air which it is capable of drawing in and conditioning while the equipment is operating with the same drive kit and motor settings used to determine its certified efficiency rating. These requirements will apply when certifying compliance with energy conservation standards denominated in terms of IEER, should DOE adopt such standards.

DOE seeks comment on its proposed additional certification requirements for SPVUs with a cooling capacity less than 65,000 Btu/h.

c. Updating Supplemental Testing Instructions for SPVACs and SPVHPs

Manufacturers are currently required to submit Supplemental Testing Instructions (“STIs”) regarding: additional test instructions if applicable; if a variety of motors/drive kits are offered for sale as options in the basic model to account for varying installation requirements, the model number and specifications of the motor (to include efficiency, horsepower, open/closed, and number of poles) and the drive kit, including settings, associated with that specific motor that were used to determine the certified rating; and which, if any, special features were included in rating the basic model. 10 CFR 429.43(b)(4)(vi) and (b)(4)(vii). DOE proposes to further specify the information manufacturers must report in their STIs that would enable the independent conduct a test of the relevant equipment to the updated test procedure in terms of IEER, including requirements to report compressor break-in period and outdoor air-side attachments, and to align with corresponding requirements for CUACs, where appropriate.

In all, DOE proposes to maintain the current requirements of 10 CFR 429.43(b)(4)(vi) and (b)(4)(vii), but move them to sections 10 CFR 429.43(b)(4)(vi)(A) and (b)(4)(vii)(A) respectively for EER certification. DOE proposes to add new provisions for SPVACs and SPVHPs in 10 CFR 429.43(b)(4)(vi)(B) and (b)(4)(vii)(B) for IEER certification to require: Compressor break-in period duration; rated indoor airflow in standard cubic feet per minute (SCFM); frequency or control set points, including the required dip switch/control settings for step or variable speed components (*e.g.*, compressors, VFDs); rated indoor airflow in SCFM for each part-load point used in the IEER calculation and any special instructions required to obtain operation at each part-load point, such as

frequency or control set points including dip switch/control settings for step or variable speed components (*e.g.*, compressors, VFDs); a statement whether the model will operate at test conditions without manufacturer programming; any additional testing instructions, if applicable; and if a variety of motors/drive kits are offered for sale as options in the basic model to account for varying installation requirements, the model number and specifications of the motor (to include efficiency, horsepower, open/closed, and number of poles) and the drive kit, including settings, associated with that specific motor that were used to determine the certified rating; outdoor air-side attachments used for testing, or any additional applicable testing instructions, are also required. Additionally, for SPVHPs, DOE proposes to add a requirement in 10 CFR 429.43(b)(4)(vii)(B) for the rated airflow in SCFM in heating mode if the unit is designed to operate with different airflow rates for cooling and heating mode.

The proposed certification requirements provide further direction to the existing requirements and would not result in significant additional burden for manufacturers. Where DOE identifies specific test-related information, the relevant information is already collected by or available to the manufacturer, and that as such, reporting that information to DOE would result in minimal additional burden.

DOE seeks comment on its proposed supplemental testing instructions requirements for SPVUs when certifying compliance with IEER standards, should such standards be adopted.

d. AEDM Tolerance for IEER

DOE's existing testing regulations allow the use of an AEDM, in lieu of testing, to simulate the efficiency of SPVUs. 10 CFR 429.43(a). For models certified with an AEDM, results from DOE verification tests are subject to certain tolerances when compared to certified ratings. Currently, DOE specifies a 5-percent tolerance for SPVUs verification tests for both EER and COP, identical to the current tolerance specified for these single-point metrics for other categories of commercial air conditioners and heat pumps. *See* table 2 to paragraph (c)(5)(vi)(B) at 10 CFR 429.70. For integrated seasonal metrics (*i.e.*, IEER) for other categories of commercial air conditioners and heat pumps, DOE specifies a 10-percent tolerance. *See id.* In alignment with such tolerances, DOE is proposing to specify a 10-percent tolerance for IEER for SPVUs.

DOE seeks comment on its proposal to specify a tolerance of 10 percent for SPVU verification tests for IEER.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to align SPVU certification reporting requirements with the amended energy conservation standards proposed in the December 2022 SPVU ECS NOPR.

DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers, because manufacturers of SPVUs are already submitting certification reports to DOE and should have readily available the information that DOE is proposing to collect as part of this rulemaking. DOE does not believe the revised reporting requirements will cause any appreciable change in

reporting burden or hours as compared to what SPVU manufacturers are currently doing.

DOE requests comment on the certification reporting costs of the amendments proposed for SPVUs.

T. Ceiling Fan Light Kits

DOE is proposing to amend the reporting requirements for CFLKs, which DOE defines as equipment designed to provide light from a ceiling fan that can be (1) integral, such that the equipment is attached to the ceiling fan prior to the time of retail sale; or (2) attachable, such that at the time of retail sale the equipment is not physically attached to the ceiling fan, but may be included inside the ceiling fan at the time of sale or sold separately for subsequent attachment to the fan. 10 CFR 430.2.

1. Reporting

In 10 CFR 429.33(b)(2)(ii)(A), DOE specifies information that must be included in the certification report for each basic model of CFLK manufactured on or after January 21, 2020. This paragraph specifies these requirements for “for each basic model of lamp and/or each basic model of non-consumer-replaceable SSL packaged with the ceiling fan light kit.” On April 10, 2023, DOE published a final rule amending CFLK test procedures. 88 FR 21061 (“April 2023 CFLK TP Final Rule”). In this rule, to clarify terminology used in the test procedure, DOE replaced the terms “other SSL products” and “integrated SSL circuitry” with, respectively, “consumer-replaceable SSL” and “non-consumer-replaceable SSL” in the CFLK test procedure appendix, 10 CFR 429.33, 10 CFR 430.23(x), and 10 CFR 430.32(s)(6). 88 FR 21061, 21067-2106868. Because 10 CFR 429.33(b)(2)(ii)(A) only specified

“integrated SSL circuitry” and omitted “other SSL products,” the April 2023 CFLK TP Final Rule only replaced “integrated SSL circuitry” with “non-consumer-replaceable SSL” and did not include “consumer replaceable SSL”, the replacement term for “other SSL products.” 88 FR 21061, 21072. Hence, CFLKs packaged with consumer-replaceable SSL are inadvertently omitted from this language. DOE is proposing modify this language to include them and read as follows, “for each basic model of lamp, each basic model of consumer-replaceable SSL, and/or each basic model of non-consumer-replaceable SSL packaged with the ceiling fan light kit”. This proposed modification to 10 CFR 429.33(b)(2)(ii)(A) will ensure that all types of CFLKs are explicitly included in certification requirements.

DOE requests comment on the proposed correction to existing CFLK certification requirements.

2. Reporting Costs and Impacts

In this NOPR, DOE proposes to correct the existing certification reporting requirements for CFLKs manufactured on or after January 21, 2020.

DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers because manufacturers of CFLKs are already submitting certification reports to DOE and should have readily available the information that DOE is proposing to collect as part of this rulemaking. DOE does not believe the revised reporting requirements will cause any appreciable change in reporting burden or hours as compared to what CFLK manufacturers are currently doing today.

DOE requests comment on the certification reporting costs of the amendments proposed for CFLKs.

U. Additional Corrections

10 CFR 429.12(i) includes the compliance dates for certain products. Specifically, the instructions state that for any product subject to an applicable energy conservation standard for which the compliance date has not yet occurred, the manufacturer must submit a certification report no later than the compliance date for the applicable energy conservation standard. However, for the covered products currently listed in 10 CFR 429.12(i), the compliance dates for initial certification have already occurred. Accordingly, DOE proposes to remove the covered products and associated compliance dates in 10 CFR 429.12(i)(1)-(5). DOE also proposes to add three new paragraphs at 10 CFR 429.12(i)(1)-(3) for air cleaners, DPPPMS, and DX-DOASes. Initial certification would be required by December 31st, 2023 for air cleaners and May 1st, 2024 for DX-DOASes. For DPPPMS, initial certification would be required 24 months after date of publication of a final rule amending DPPPMS standards.

DOE provides definitions related to the energy efficiency program for certain commercial and industrial equipment in 10 CFR 431.2. In this section, DOE has identified updates needed in two definitions. The definition for “covered equipment” lists covered equipment and notes where the covered equipment term is defined within 10 CFR. “Commercial heating, ventilating, and air conditioning, and water heating product (HVAC & WH product)” are included in this list and refers to this term as defined in §431.172. However, this term is defined in 10 CFR 431.2, rather than §431.172. As such, DOE is proposing to update the definition for “covered equipment” to update the reference to the definition for “commercial heating, ventilating, and air conditioning, and water heating product” in 10 CFR 431.2.

Additionally, as mentioned above, the definition of “covered equipment” in 10 CFR 431.2 is intended to reference each equipment type covered within 10 CFR part 431. The current definition does not include all covered equipment types. Therefore, DOE is proposing to add these equipment types and their corresponding definition section references within the definition of covered equipment in 10 CFR 431.2. Specifically, DOE proposes to add references to: fan or blower, as defined in §431.172; compressor, as defined in §431.342; small electric motor, as defined in §431.442; pump, as defined in §431.462; and dedicated purpose pool pump motor, as defined in §431.483.

DOE requests comment on the proposed updates to compliance dates listed in 10 CFR 429.12 and to the “covered equipment” definition in 10 CFR 431.2.

V. Draft Certification Templates for Review

To help interested parties better understand and review the proposed amendments discussed in the earlier sections of this NOPR, DOE has developed a draft document that includes example tables showing the certification report template inputs as would be required in accordance with the proposals in this NOPR, if finalized.²⁷ The draft tables also include the data entry requirements for each field in the certification report input table.

The draft certification table headers are not reflective of the final certification regulations that may be adopted by a subsequent final rule, nor do they represent the entirety of the information required in a certification report. Upon completion of this

²⁷ The draft reporting template requirements will be made available in docket number EERE-2023-BT-CE-0001, available at www.regulations.gov, upon publication of this NOPR.

rulemaking, DOE will revise the reporting templates to reflect the final certification regulations once DOE has received approval from OMB to collect the revised information. The specific templates that should be used for certifying compliance of covered products and equipment to DOE are available for download at www.regulations.doe.gov/ccms/templates.

IV. Procedural Issues and Regulatory Review

A. Review Under Executive Orders 12866, 13563, and 14094

Executive Order (“E.O.”) 12866, “Regulatory Planning and Review,” as supplemented and reaffirmed by E.O. 13563, “Improving Regulation and Regulatory Review,” 76 FR 3821 (Jan. 21, 2011), and amended by E.O. 14094, “Modernizing Regulatory Review,” 88 FR 21879 (April 11, 2023), requires agencies, to the extent permitted by law, to (1) propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity); (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt; and (5) identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public. DOE emphasizes as well

that E.O. 13563 requires agencies to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible. In its guidance, the Office of Information and Regulatory Affairs (“OIRA”) in the Office of Management and Budget (“OMB”) has emphasized that such techniques may include identifying changing future compliance costs that might result from technological innovation or anticipated behavioral changes. For the reasons stated in the preamble, this proposed regulatory action is consistent with these principles.

Section 6(a) of E.O. 12866 also requires agencies to submit “significant regulatory actions” to OIRA for review. This action does not constitute a significant action under section 3(f) of E.O. 12866. Accordingly, this action was not submitted to OIRA for review under E.O. 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”) 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: www.energy.gov/gc/office-general-counsel. DOE

reviewed this proposed rule under the provisions of the Regulatory Flexibility Act and the procedures and policies published on February 19, 2003.

DOE has tentatively concluded that the removal of outdated reporting requirements and the addition of new reporting requirements adopted in this final rule will not impose additional costs for manufacturers of CAC/HPs, DWs, RCWs, dehumidifiers, EPSs, battery chargers, CRACs, three-phase, less than 65,000 Btu/h ACUACs and ACUHPs, three-phase, less than 65,000 Btu/h VRF, ACIMs, walk-ins, commercial and industrial pumps, portable ACs, compressors, SPVUs, and CFLKs for the reasons discussed in section III of this document. For these products and equipment, DOE has determined that the amendments will not impose additional costs for manufacturers because manufacturers are already submitting certification reports to DOE and should have readily available the information that DOE is requiring as part of this proposed rulemaking. Consequently, for these types of covered products and equipment, the changes in this final rule are not expected to have a significant economic impact on related entities regardless of size.

For electric pool heaters, no certification is currently required. This proposal would add reporting requirements to align with the amended energy conservation standards finalized in the May 2023 Pool Heaters Final Rule, which established new and amended energy conservation standards for electric pool heaters. 88 FR 34624. Therefore, electric pool heater manufacturers would incur additional paperwork costs.

Consumer pool heaters are classified under NAICS code 333414, “heating equipment (except warm air furnaces) manufacturing.” The SBA sets a threshold of 500 employees or fewer for an entity to be considered as a small business for this category. DOE used publicly available information to identify potential small

manufacturers. DOE's research involved industry trade association membership directories (*e.g.*, AHRI), information from previous rulemakings, individual company websites, and market research tools (*e.g.*, D&B Hoovers reports) to create a list of companies that manufacture consumer pool heaters. DOE also asked stakeholders and industry representatives if they were aware of any additional small manufacturers during manufacturer interviews. DOE reviewed publicly available data and contacted various companies on its complete list of manufacturers to determine whether they met the SBA's definition of a small business manufacturer. DOE screened out companies that do not offer products impacted by this rulemaking, do not meet the definition of a “small business,” or are foreign-owned and operated. DOE identified 21 companies manufacturing consumer pool heaters covered by this rulemaking. Of these manufacturers, DOE identified six as domestic small businesses. None of these six businesses manufacture gas fired pool heaters. Five manufacture electric heat pump pool heaters and one manufactures electric resistance pool heaters. DOE estimates that the increased certification burden would result in 35 hours per manufacturer to develop the required certification reports. Therefore, based on a fully burdened labor rate of \$67 per hour, the estimated total annual cost to manufacturers would be \$2,345 per manufacturer.²⁸ Using available public information, DOE estimated the average annual revenue of the six small businesses. Among the small businesses, the lowest estimated annual revenue was approximately \$259,000—therefore, this additional certification cost of \$2,345 per manufacturer represents less than 1 percent of the identified manufacturer’s annual revenue.

²⁸ Supporting Statement for Certification Reports, Compliance Statements, Application for a Test Procedure Waiver, and Recording keeping for Consumer Products and Commercial Equipment Subject to Energy or Water Conservation Standards. Available at [omb.report/icr/202112-1910-001/doc/117137200](https://www.omb.eop.govt/omb/report/icr/202112-1910-001/doc/117137200).

Additionally, for DX-DOASes, no certification is currently required. This proposal would add reporting requirements to align with the new energy conservation standards. 10 CFR 431.97(g). Therefore, DX-DOASes manufacturers would incur additional paperwork costs as well. DX-DOASes are classified under NAICS code 333415,²⁹ “Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing.” The SBA sets a threshold of 1,250 employees or fewer for an entity to be considered as a small business for this category. In reviewing the DX-DOAS market, DOE used company websites, marketing research tools, product catalogues, and other public information to identify companies that manufacture DX-DOASes. DOE screened out companies that do not meet the definition of “small business” or are foreign-owned and operated. DOE used subscription-based business information tools to determine headcount, revenue, and geographic presence of the small businesses. DOE identified twelve companies manufacturing DX-DOASes covered by this rulemaking. Of these manufacturers, DOE identified one as a domestic small business. DOE estimates that the increased certification burden would result in 35 hours per manufacturer to develop the required certification reports. Therefore, based on a fully burdened labor rate of \$67 per hour, the estimated total annual cost to manufacturers would be \$2,345 per manufacturer.³⁰ DOE understands the annual revenue of the small business that manufactures DX-DOASes to be approximately \$66 million. 87 FR 5560, 5584. Therefore, this

²⁹ The business size standards are listed by NAICS code and industry description and are available at www.sba.gov/document/support-table-size-standards (last Accessed July 29th, 2021).

³⁰ Supporting Statement for Certification Reports, Compliance Statements, Application for a Test Procedure Waiver, and Recording keeping for Consumer Products and Commercial Equipment Subject to Energy or Water Conservation Standards. Available at omb.report/icr/202112-1910-001/doc/117137200.

additional certification cost of \$2,345 per manufacturer represents significantly less than 1 percent of the identified manufacturer's annual revenue.

This document also proposes certification reporting requirements for commercial electric instantaneous water heaters, which would align with the previously inadvertently omitted energy conservation standards put in place by EPCA and were proposed in the May 2022 CWH NOPR. 97 FR 30610. As a result, commercial electric instantaneous water heater manufacturers would incur additional paperwork costs. CWH equipment is classified under NAICS code 333310,³¹ “Commercial and Service Industry Machinery Manufacturing.” In 13 CFR 121.201, the SBA sets a threshold of 1,000 employees or fewer for an entity to be considered as a small business for this category. DOE's analysis relied on publicly available databases to identify potential small businesses that manufacture equipment covered in this rulemaking. DOE utilized the California Energy Commission's MAEDbS,³² DOE's ENERGY STAR Database,³³ and DOE's CCD³⁴ in identifying manufacturers. DOE's research identified nine original equipment manufacturers (“OEMs”) of commercial electric instantaneous water heaters being sold in the U.S. market. Of these nine companies, DOE has identified three as domestic small businesses. The small businesses do not currently certify any other CWH equipment to DOE's Compliance Certification Management System (“CCMS”). DOE estimates that the

³¹ The business size standards are listed by NAICS code and industry description and are available at www.sba.gov/document/support-table-size-standards (last accessed March 7th, 2023).

³² MAEDbS can be accessed at <https://www.energy.ca.gov/programs-and-topics/programs/appliance-efficiency-program-outreach-and-education/modernized> (last accessed July 15th, 2021).

³³ ENERGY STAR-certified products can be found in the ENERGY STAR database accessed at www.energystar.gov/productfinder/product/certified-commercial-water-heaters/results (last accessed July 15th, 2021).

³⁴ Certified equipment in the CCD are listed by product class and can be accessed at www.regulations.doe.gov/certification-data/#q=Product_Group_s%3A* (last accessed July 15th, 2021).

increased certification burden would result in 35 hours per manufacturer to develop the required certification reports. Therefore, based on a fully burdened labor rate of \$67 per hour, the estimated total annual cost to manufacturers would be \$2,345 per manufacturer.³⁵ Using available public information, DOE estimated the annual revenue for all three small businesses that manufacture commercial electric instantaneous water heaters. The small business with the least annual revenue has an annual revenue of approximately \$10,400,000. Therefore, this additional certification cost of \$2,345 per manufacturer represents significantly less than 1 percent of each identified manufacturer's annual revenue.

For DPPPMS, no certification is currently required. This proposal would add reporting requirements to align with the energy conservation standards proposed in the June 2022 DPPPMS NOPR, which proposed new energy conservation standards for DPPPMS. 87 FR 37122. Therefore, DPPPMS manufacturers would incur additional paperwork costs. DPPPMS are classified under NAICS code 335312, "Motor and Generator Manufacturing." The SBA sets a threshold of 1,250 employees or fewer for an entity to be considered as a small business in this category. DOE screened out companies that do not offer products impacted by this rulemaking, do not meet the definition of a "small business," or are foreign-owned and operated. DOE identified five companies manufacturing DPPPMS for the domestic market. Of those, DOE determined that one company met the SBA definition of a small business. DOE estimates that the increased certification burden would result in 35 hours per manufacturer to develop the required certification reports annually. Therefore, based

³⁵ Supporting Statement for Certification Reports, Compliance Statements, Application for a Test Procedure Waiver, and Recording keeping for Consumer Products and Commercial Equipment Subject to Energy or Water Conservation Standards. Available at [omb.report/icr/202112-1910-001/doc/117137200](https://www.omb.report/icr/202112-1910-001/doc/117137200).

on a fully burdened labor rate of \$67 per hour, the estimated total annual cost to manufacturers would be \$2,345 per manufacturer.³⁶ DOE was able to identify an annual revenue estimate of approximately \$28.2 million for the small business.³⁷ Therefore, this additional certification cost of \$2,345 per manufacturer represents significantly less than 1 percent of the identified manufacturer’s annual revenue.

This proposal would also add reporting requirements to align with the energy conservation standards established in the April 2023 Air Cleaners DFR, which developed new energy conservation standards for air cleaners. Therefore, air cleaner manufacturers would incur additional paperwork costs. Air cleaners are classified under NAICS code 335210, “Small Electrical Appliance Manufacturing.” The SBA sets a threshold of 1,500 employees or fewer for an entity to be considered as a small business for this category. DOE conducted a market survey to identify potential small manufacturers of air cleaners. DOE began its assessment by reviewing Association of Home Appliance Manufacturers’ (AHAM’s) database³⁸ of air cleaners, models in ENERGY STAR V.2.0,³⁹ California Air Resources Board,⁴⁰ and individual company websites. DOE then consulted publicly available data, such as manufacturer websites, manufacturer specifications and product literature, and import/export logs (*e.g.*, bills of lading from Panjiva⁴¹), to identify OEMs of air cleaners. DOE further relied on

³⁶ Supporting Statement for Certification Reports, Compliance Statements, Application for a Test Procedure Waiver, and Recording keeping for Consumer Products and Commercial Equipment Subject to Energy or Water Conservation Standards. Available at omb.report/icr/202112-1910-001/doc/117137200.

³⁷ The small business's annual revenue estimate is taken from D&B Hoovers (app.avenion.com).

³⁸ Association of Home Appliance Manufacturers. “Find a Certified Room Air Cleaner.” Available at ahamverify.org/directory-of-air-cleaners/ (last accessed January 24, 2022).

³⁹ Available at data.energystar.gov/Active-Specifications/ENERGY-STAR-Certified-Room-Air-Cleaners/jmck-i55n/data (last accessed May 31, 2022).

⁴⁰ The California Air Resources Board. “List of CARB-Certified Air Cleaning Devices.” Available at ww2.arb.ca.gov/list-carb-certified-air-cleaning-devices (last accessed May 31, 2022).

⁴¹ S&P Global. Panjiva Market Intelligence is available at panjiva.com/import-export/United-States (last accessed May 5, 2022).

public data and subscription-based market research tools (*e.g.*, Dun & Bradstreet reports⁴²) to determine company, location, headcount, and annual revenue. DOE screened out companies that do not offer products covered by this rulemaking, do not meet the SBA’s definition of a “small business,” or are foreign-owned and operated. DOE initially identified 43 OEMs that sell air cleaners in the United States. Of the 43 OEMs identified, DOE tentatively determined four companies qualify as small businesses and are not foreign-owned and operated. DOE estimates that the increased certification burden would result in 35 hours per manufacturer to develop the required certification reports. Therefore, based on a fully burdened labor rate of \$67 per hour, the estimated total annual cost to manufacturers would be \$2,345 per manufacturer.⁴³ Using available public information, DOE estimated the annual revenue for all four small businesses that manufacture air cleaners. The small business with the least annual revenue has an annual revenue of approximately \$1.3 million. Therefore, this additional certification cost of \$2,345 per manufacturer represents significantly less than 1 percent of each identified manufacturer’s annual revenue.

DOE reviewed this proposed rule under the provisions of the Regulatory Flexibility Act and the policies and procedures published on February 19, 2003. On the basis of the forgoing, DOE initially concludes that the impacts of the amendments to DOE's certification regulations proposed in this NOPR would not have a “significant economic impact on a substantial number of small entities.” Accordingly, DOE has not prepared an IRFA for this NOPR. DOE will transmit this certification of

⁴² The Dun & Bradstreet Hoovers login is available at app.dnbhoovers.com.

⁴³ Supporting Statement for Certification Reports, Compliance Statements, Application for a Test Procedure Waiver, and Recording keeping for Consumer Products and Commercial Equipment Subject to Energy or Water Conservation Standards. Available at omb.report/icr/202112-1910-001/doc/117137200.

no significant impact on a substantial number of small entities and supporting statement of factual basis to the Chief Counsel for Advocacy of the SBA for review under 5 U.S.C. 605(b).

C. Review Under the Paperwork Reduction Act of 1995

Manufacturers of CAC/HPs, DWs, RCWs, pool heaters, dehumidifiers, EPSs, battery chargers, CRACs, DX-DOASes, three-phase, less than 65,000 Btu/h ACUACs and ACUHPs, three-phase, less than 65,000 Btu/h VRF, CWHs, ACIMs, walk-ins, commercial and industrial pumps, portable ACs⁴⁴, compressors, DPPPMS, air cleaners, and SPVUs must certify to DOE that their products comply with any applicable energy conservation standards. To certify compliance, manufacturers must first obtain test data for their products according to the DOE test procedures. DOE has established regulations for the certification and recordkeeping requirements for all covered consumer products and commercial equipment, including CAC/HPs, DWs, RCWs, pool heaters, dehumidifiers, EPSs, battery chargers, CRACs, DX-DOASes, three-phase, less than 65,000 Btu/h ACUACs and ACUHPs, three-phase, less than 65,000 Btu/h VRF, CWHs, ACIMs, walk-ins, commercial and industrial pumps, portable ACs, compressors, DPPPMS, air cleaners, SPVUs, and CFLKs. (*See generally* 10 CFR part 429.) The collection-of-information requirement for the certification and recordkeeping is subject to review and approval by OMB under the Paperwork Reduction Act (“PRA”). DOE’s current reporting requirements are approved by OMB under OMB control number 1910-1400. Public reporting burden for the certification is estimated to average 35 hours per response, including the time

⁴⁴ The certification reporting requirements for portable ACs were established in the January 2020 Portable ACs ECS Final Rule. However, the energy conservation standard for portable ACs does not go into effect until January 2025, until which time manufacturers may optionally submit certification reports to DOE.

for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

1. Description of the Requirements

DOE is proposing to establish or amend the reporting requirements for CAC/HPs, DWs, RCWs, pool heaters, dehumidifiers, EPSs, battery chargers, CRACs, DX-DOASes, three-phase, less than 65,000 Btu/h ACUACs and ACUHPs, three-phase, less than 65,000 Btu/h VRF, CWHs, ACIMs, walk-ins, commercial and industrial pumps, portable ACs, compressors, DPPPMS, air cleaners, SPVUs, and CFLKs. DOE will send a revised information collection approval to OMB under the existing Control Number 1910-1400. The revisions will just reflect the changes proposed in this rulemaking as an amendment to the existing information collection.

2. Method of Collection

DOE is proposing that respondents must submit electronic forms using DOE's online CCMS. DOE's CCMS is publicly accessible at www.regulations.doe.gov/ccms/, and includes instructions for users, registration forms, and the product-specific reporting templates required for use when submitting information to CCMS.

3. Data

The following are DOE estimates of the total annual reporting and recordkeeping burden imposed on manufacturers of CAC/HPs, DWs, RCWs, pool heaters, dehumidifiers, EPSs, battery chargers, CRACs, DX-DOASes, three-phase, less than 65,000 Btu/h ACUACs and ACUHPs, three-phase, less than 65,000 Btu/h VRF, CWHs, ACIMs, walk-ins, commercial and industrial pumps, portable ACs,

compressors, DPPPMS, air cleaners, SPVUs, and CFLKs subject to the new or amended certification reporting requirements proposed in this proposed rule. These estimates take into account the time necessary to develop any additional testing documentation, maintain any additional documentation supporting the development of the certified rating for each basic model, complete any additional certification, and submit any additional required documents to DOE electronically.

DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers of CAC/HPs, DWs, RCWs, dehumidifiers, EPSs, battery chargers, CRACs, three-phase, less than 65,000 Btu/h ACUACs and ACUHPs, three-phase, less than 65,000 Btu/h VRF, electric storage CWHs, ACIMs, walk-ins, commercial and industrial pumps, compressors, SPVUs, and CFLKs because manufacturers of these products or equipment are already submitting certification reports to DOE and should have readily available the information that DOE is proposing to collect as part of this rulemaking. Additionally, for portable ACs, manufacturers may optionally submit certification reports to DOE and the costs associated with certification requirements for portable ACs were already accounted for in the January 2020 Portable ACs ECS Final Rule.

DOE's proposed amendments for the reporting requirements for pool heaters would require new certification reporting for electric pool heater manufacturers and importers. DOE estimates there are 18 manufacturers of electric pool heaters that would have to submit annual certification reports to DOE for those products based on the proposed reporting requirements. Of these 18 manufacturers, 4 make both gas-fired and electric pool heaters. Therefore, 14 do not currently certify gas-fired pool heaters and would be required to begin submitting certification reports for electric

pool heaters. The following section estimates the burden for these 14 electric pool heater manufacturers.

OMB Control Number: 1910–1400.

Form Number: DOE F 220.13.

Type of Review: Regular submission.

Affected Public: Domestic manufacturers and importers of electric pool heaters covered by this rulemaking.

Estimated Number of Respondents: 14.

Estimated Time per Response: Certification reports, 35 hours.

Estimated Total Annual Burden Hours: 490.

Estimated Total Annual Cost to the Manufacturers: \$32,830 in recordkeeping/reporting costs.

DOE's proposed addition of reporting requirements for direct expansion-dedicated outdoor air systems would require new certification reporting for direct expansion-dedicated outdoor air systems. DOE estimates there are 12 manufacturers of direct expansion-dedicated outdoor air systems that would have to submit annual certification reports to DOE for those products based on the proposed reporting requirements. The following section estimates the burden for these 12 direct expansion-dedicated outdoor air system manufacturers.

OMB Control Number: 1910–1400.

Form Number: DOE F 220.96.

Type of Review: Regular submission.

Affected Public: Domestic manufacturers and importers of direct expansion-dedicated outdoor air systems covered by this rulemaking.

Estimated Number of Respondents: 12.

Estimated Time per Response: Certification reports, 35 hours.

Estimated Total Annual Burden Hours: 420.

Estimated Total Annual Cost to the Manufacturers: \$28,140 in recordkeeping/reporting costs.

DOE's proposed addition of reporting requirements for commercial electric instantaneous water heaters would require new certification reporting for commercial electric instantaneous water heaters. DOE estimates there are 9 manufacturers of commercial electric instantaneous water heaters that would have to submit annual certification reports to DOE for those products based on the proposed reporting requirements. The following section estimates the burden for these 9 commercial electric instantaneous water heater manufacturers.

OMB Control Number: 1910–1400.

Form Number: DOE F 220.43.

Type of Review: Regular submission.

Affected Public: Domestic manufacturers and importers of commercial electric instantaneous water heater manufacturers covered by this rulemaking.

Estimated Number of Respondents: 9.

Estimated Time per Response: Certification reports, 35 hours.

Estimated Total Annual Burden Hours: 315.

Estimated Total Annual Cost to the Manufacturers: \$21,105 in recordkeeping/reporting costs.

DOE's proposed amendments for the reporting requirements for dedicated-purpose pool pump motors would require new certification reporting for dedicated-purpose pool pump manufacturers and importers. DOE estimates there are five manufacturers of dedicated-purpose pool pump motors that would have to submit annual certification reports to DOE for those products based on the proposed reporting requirements. The following section estimates the burden for these five dedicated-purpose pool pump motor manufacturers.

OMB Control Number: 1910–1400.

Form Number: DOE F 220.97.

Type of Review: Regular submission.

Affected Public: Domestic manufacturers and importers of dedicated-purpose pool pump motors covered by this rulemaking.

Estimated Number of Respondents: 5.

Estimated Time per Response: Certification reports, 35 hours.

Estimated Total Annual Burden Hours: 175.

Estimated Total Annual Cost to the Manufacturers: \$11,725 in recordkeeping/reporting costs.

DOE's proposed amendments for the reporting requirements for air cleaners would require new certification reporting for air cleaner manufacturers and importers. DOE estimates that there are 43 manufacturers of air cleaners that would have to

submit annual certification reports to DOE for those products based on the proposed reporting requirements. The following section estimates the burden for these 43 air cleaner manufacturers.

OMB Control Number: 1910–1400.

Form Number: DOE F 220.100.

Type of Review: Regular submission.

Affected Public: Domestic manufacturers and importers of air cleaners covered by this rulemaking.

Estimated Number of Respondents: 43.

Estimated Time per Response: Certification reports, 35 hours.

Estimated Total Annual Burden Hours: 1,505.

Estimated Total Annual Cost to the Manufacturers: \$100,835 in recordkeeping/reporting costs.

4. Conclusion

DOE has tentatively concluded that the removal of outdated reporting requirements and the addition of reporting requirements as proposed in this NOPR would not impose additional costs for CAC/HPs, DWs, RCWs, dehumidifiers, EPSs, battery chargers, CRACs, three-phase, less than 65,000 Btu/h ACUACs and ACUHPs, three-phase, less than 65,000 Btu/h VRF, electric storage CWHs, ACIMs, walk-ins coolers and freezers, commercial and industrial pumps, portable ACs, compressors, SPVUs, and CFLKs (*see* sections III.A.2, III.B.2, III.C.2, III.E.2,

III.F.2, III.G.2, III.H.2, III.J.2, III.K.2, III.L.2, III.M.2, III.N.2, III.O.2, III.P.2, III.S.2, III.T.2, and III.U.2 of this document for a more complete discussion). Furthermore, DOE has tentatively concluded that there are 14 pool heater manufacturers, 12 DX-DOAS manufacturers, nine CWH manufacturers, five DPPPMM manufacturers, and 43 air cleaner manufacturers that would newly be required to submit annual certification reports to DOE for those products. For all other manufacturers of covered products or equipment described in this NOPR, the public reporting burden for certification remains unchanged.

Public comment is sought regarding: (1) Whether this proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (2) the accuracy of the burden estimate; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information, including through the use of automated collection techniques or other forms of information technology. Send comments on these or any other aspects of the collection of information to the email address listed in the **ADDRESSES** section and to the OMB Desk Officer by email to *Sofie.E.Miller@omb.eop.gov*.

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

In this NOPR, DOE proposes amended certification, reporting, and labeling requirements for CAC/HPs, DWs, RCWs, pool heaters, dehumidifiers, EPSs, battery chargers, CRACs, DX-DOASes, three-phase, less than 65,000 Btu/h ACUACs and ACUHPs, three-phase, less than 65,000 Btu/h VRF, CWHs, ACIMs, walk-ins, commercial and industrial pumps, portable ACs, compressors, DPPPMs, air cleaners, SPVUs, and CFLKs. 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, DOE has determined that adopting test procedures for measuring energy efficiency of consumer products and industrial equipment is consistent with activities identified in 10 CFR part 1021, appendix A to subpart D, A5 and A6. 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. 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 proposed 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 proposed 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, the proposed 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. 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 www.energy.gov/gc/office-general-counsel. DOE examined this proposed rule 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, 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 proposed 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 proposed regulation would not result in any takings that might require compensation under the Fifth Amendment to the U.S. Constitution.

J. Review Under 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). Pursuant to OMB Memorandum M-19-15, Improving Implementation of the Information Quality Act (April 24, 2019), DOE published updated guidelines which

are available at

www.energy.gov/sites/prod/files/2019/12/f70/DOE%20Final%20Updated%20IQA%20Guidelines%20Dec%202019.pdf. DOE has reviewed this proposed rule under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

K. Review Under Executive Order 13211

Executive Order 13211, “Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use,” 66 FR 28355 (May 22, 2001), requires Federal agencies to prepare and submit to OMB, a Statement of Energy Effects for any proposed significant energy action. A “significant energy action” is defined as any action by an agency that promulgated 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.

The proposed 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 Federal Trade Commission (“FTC”) concerning the impact of the commercial or industry standards on competition.

The proposed modifications to the certification reporting and labeling requirements for CAC/HPs, DWs, RCWs, pool heaters, dehumidifiers, EPSs, battery chargers, CRACs, DX-DOASes, three-phase, less than 65,000 Btu/h ACUACs and ACUHPs, three-phase, less than 65,000 Btu/h VRF, CWHs, ACIMs, walk-ins, commercial and industrial pumps, portable ACs, compressors, DPPPMS, air cleaners, SPVUs, and CFLKs do not incorporate testing methods contained in any commercial standards.

M. Description of Materials Incorporated by Reference

DOE is proposing to remove the existing incorporation by reference of industry standard ANSI/AHAM DW-1-2010 from 10 CFR 429.4. No other changes are being proposed to materials incorporated by reference.

V. Public Participation

A. Participation in the Webinar

The time and date of the webinar meeting are listed in the **DATES** section at the beginning of this document. Webinar registration information, participant instructions, and information about the capabilities available to webinar participants will be published on DOE's website ~~www.energy.gov/buildings/implementation-certification-and-enforcement~~ www.energy.gov/buildings/implementation-certification-and-enforcement. Participants are responsible for ensuring their systems are compatible with the webinar software.

B. Procedure for Submitting Prepared General Statements for Distribution

Any person who has an interest in the topics addressed in this notice, or who is representative of a group or class of persons that has an interest in these issues, may request an opportunity to make an oral presentation at the webinar. Such persons may submit to *ApplianceStandardsQuestions@ee.doe.gov*. Persons who wish to speak should include with their request a computer file in WordPerfect, Microsoft Word, PDF, or text (ASCII) file format that briefly describes the nature of their interest in this rulemaking and the topics they wish to discuss. Such persons should also provide a daytime telephone number where they can be reached.

DOE requests persons selected to make an oral presentation to submit an advance copy of their statements at least two weeks before the webinar. At its discretion, DOE may permit persons who cannot supply an advance copy of their statement to participate, if those persons have made advance alternative arrangements

with the Building Technologies Office. As necessary, requests to give an oral presentation should ask for such alternative arrangements.

C. Conduct of the Webinar

DOE will designate a DOE official to preside at the webinar/public meeting and may also use a professional facilitator to aid discussion. The meeting will not be a judicial or evidentiary-type public hearing, but DOE will conduct it in accordance with section 336 of EPCA (42 U.S.C. 6306). A court reporter will be present to record the proceedings and prepare a transcript. DOE reserves the right to schedule the order of presentations and to establish the procedures governing the conduct of the webinar. There shall not be discussion of proprietary information, costs or prices, market share, or other commercial matters regulated by U.S. anti-trust laws. After the webinar and until the end of the comment period, interested parties may submit further comments on the proceedings and any aspect of the rulemaking.

The webinar will be conducted in an informal, conference style. DOE will a general overview of the topics addressed in this rulemaking, allow time for prepared general statements by participants, and encourage all interested parties to share their views on issues affecting this rulemaking. Each participant will be allowed to make a general statement (within time limits determined by DOE), before the discussion of specific topics. DOE will permit, as time permits, other participants to comment briefly on any general statements.

At the end of all prepared statements on a topic, DOE will permit participants to clarify their statements briefly. Participants should be prepared to answer questions by DOE and by other participants concerning these issues. DOE representatives may

also ask questions of participants concerning other matters relevant to this rulemaking. The official conducting the webinar/public meeting will accept additional comments or questions from those attending, as time permits. The presiding official will announce any further procedural rules or modification of the above procedures that may be needed for the proper conduct of the webinar.

A transcript of the webinar will be included in the docket, which can be viewed as described in the *Docket* section at the beginning of this notice. In addition, any person may buy a copy of the transcript from the transcribing reporter.

D. Submission of Comments

DOE will accept comments, data, and information regarding this proposed rule before or after the public meeting, but no later than the date provided in the **DATES** section at the beginning of this proposed rule.⁴⁵ Interested parties may submit comments, data, and other information using any of the methods described in the **ADDRESSES** section at the beginning of this document.

Submitting comments via www.regulations.gov. The www.regulations.gov webpage will require you to provide your name and contact information. Your contact information will be viewable to DOE Building Technologies staff only. Your

⁴⁵ DOE has historically provided a 75-day comment period for test procedure NOPRs pursuant to the North American Free Trade Agreement, U.S.-Canada-Mexico (“NAFTA”), Dec. 17, 1992, 32 I.L.M. 289 (1993); the North American Free Trade Agreement Implementation Act, Pub. L. 103-182, 107 Stat. 2057 (1993) (codified as amended at 10 U.S.C.A. 2576) (1993) (“NAFTA Implementation Act”); and Executive Order 12889, “Implementation of the North American Free Trade Agreement,” 58 FR 69681 (Dec. 30, 1993). However, on July 1, 2020, the Agreement between the United States of America, the United Mexican States, and the United Canadian States (“USMCA”), Nov. 30, 2018, 134 Stat. 11 (*i.e.*, the successor to NAFTA), went into effect, and Congress’s action in replacing NAFTA through the USMCA Implementation Act, 19 U.S.C. 4501 *et seq.* (2020), implies the repeal of E.O. 12889 and its 75-day comment period requirement for technical regulations. Thus, the controlling laws are EPCA and the USMCA Implementation Act. Consistent with EPCA’s public comment period requirements for consumer products, the USMCA only requires a minimum comment period of 60 days. Consequently, DOE now provides a 60-day public comment period for test procedure NOPRs.

contact information will not be publicly viewable except for your first and last names, organization name (if any), and submitter representative name (if any). If your comment is not processed properly because of technical difficulties, DOE will use this information to contact you. If DOE cannot read your comment due to technical difficulties and cannot contact you for clarification, DOE may not be able to consider your comment.

However, your contact information will be publicly viewable if you include it in the comment itself or in any documents attached to your comment. Any information that you do not want to be publicly viewable should not be included in your comment, nor in any document attached to your comment. Otherwise, persons viewing comments will see only first and last names, organization names, correspondence containing comments, and any documents submitted with the comments.

Do not submit to *www.regulations.gov* information for which disclosure is restricted by statute, such as trade secrets and commercial or financial information (hereinafter referred to as Confidential Business Information (“CBI”). Comments submitted through *www.regulations.gov* cannot be claimed as CBI. Comments received through the website will waive any CBI claims for the information submitted. For information on submitting CBI, see the Confidential Business Information section.

DOE processes submissions made through *www.regulations.gov* before posting. Normally, comments will be posted within a few days of being submitted. However, if large volumes of comments are being processed simultaneously, your

comment may not be viewable for up to several weeks. Please keep the comment tracking number that *www.regulations.gov* provides after you have successfully uploaded your comment.

Submitting comments via email, hand delivery/courier, or postal mail.

Comments and documents submitted via email, hand delivery/courier, or postal mail also will be posted to *www.regulations.gov*. If you do not want your personal contact information to be publicly viewable, do not include it in your comment or any accompanying documents. Instead, provide your contact information in a cover letter. Include your first and last names, email address, telephone number, and optional mailing address. The cover letter will not be publicly viewable as long as it does not include any comments.

Include contact information each time you submit comments, data, documents, and other information to DOE. If you submit via postal mail or hand delivery/courier, please provide all items on a CD, if feasible, in which case it is not necessary to submit printed copies. No telefacsimiles (“faxes”) will be accepted.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format. Provide documents that are not secured, written in English, and that are free of any defects or viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author.

Campaign form letters. Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters' names compiled into one or more PDFs. This reduces comment processing and posting time.

Confidential Business Information. Pursuant to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email two well-marked copies: one copy of the document marked "confidential" including all the information believed to be confidential, and one copy of the document marked "non-confidential" with the information believed to be confidential deleted. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

It is DOE's policy that all comments may be included in the public docket, without change and as received, including any personal information provided in the comments (except information deemed to be exempt from public disclosure).

E. Issues on Which DOE Seeks Comment

Although DOE welcomes comments on any aspect of this proposal, DOE is particularly interested in receiving comments and views of interested parties concerning the following issues:

- 1) DOE seeks comment on its proposal to require reporting of whether a variable speed coil-only rating is based on non-communicating or communicating control.

- 2) DOE seeks comment on its proposal to require reporting of whether a CAC/HP system varies blower speeds with outdoor air conditions.
- 3) DOE seeks comment on its proposal to correct the sampling provisions for CAC/HPs to reference Appendix A instead of Appendix D.
- 4) DOE requests comment on the certification reporting costs of the amendments proposed for CAC/HPs.
- 5) DOE requests comment on its proposal to remove ANSI/AHAM DW-1-2010 from the referenced industry standard in 10 CFR 429.19(b)(2).
- 6) DOE requests comment on the proposed requirement to confidentially report the cycle selected for the energy test at the heavy, medium, and light soil loads and whether these cycles are soil-sensing as well as the options selected for the energy test at the heavy, medium, and light soil loads when testing according to appendix C2.
- 7) DOE requests comment on the proposed requirement to confidentially report the average cleaning index of the sensor heavy response, sensor medium response, and sensor light response test cycles.
- 8) DOE seeks comment on its proposal to require that additional machine electrical energy consumption required for a drain out event and clean out event—expressed in kWh—and the additional water consumption required for drain out and clean out events during a drain out cycle—expressed in gal/cycle—be reported confidentially.
- 9) DOE seeks comment on its proposal to require reporting of reservoir capacity in gallons, prewash and main wash fill water volume in gallons (if testing is performed using appendix C1), and the total water consumption in gallons per cycle for DWs with built-in reservoirs.

- 10) DOE requests comment on the proposed rounding requirements for DWs.
- 11) DOE requests comment on the certification reporting costs of the amendments proposed for DWs.
- 12) DOE requests comment on its proposal to remove reporting requirements applicable to appendix J1 from 10 CFR 429.20(b)(2)(i).
- 13) DOE requests comment on its proposal to update reporting requirement terminology to specify “clothes container capacity for RCWs.
- 14) DOE requests comment on its proposal to require the reporting of the test cloth lot number for RCWs for the purpose of implementing the enforcement provisions in 10 CFR 429.134(c), as well as its proposal that the reported test cloth lot number would not be public.
- 15) DOE requests comment on the proposed RCW reporting requirements for EER and WER, including the proposed rounding requirements.
- 16) DOE requests comment on its proposal to require reporting the type of control system (automatic or semi-automatic) for RCWs.
- 17) DOE requests comment on its proposal to require reporting of RMC, clothes container capacity, and type of loading (top-loading or front-loading) for RCWs tested in accordance with appendix J.
- 18) DOE requests comment on the certification reporting costs of the amendments proposed for RCWs.
- 19) DOE seeks comment on its proposal to require the reporting of input capacity, active electrical power, and integrated thermal efficiency. DOE also seeks comment on the proposed rounding requirements.
- 20) DOE requests comment on the certification reporting costs of the amendments proposed for pool heaters.

- 21) DOE seeks comment on its proposal to remove the outdated appendix X certification requirements.
- 22) DOE requests comment on the certification reporting costs of the amendments proposed for dehumidifiers.
- 23) DOE seeks comment on its proposal to require the reporting of output cord specifications for EPSs.
- 24) DOE seeks comment on its proposal to require the reporting of measured output voltage for EPSs for each port.
- 25) DOE seeks comment on its proposal to require manufacturers of exempt EPSs to report the year for which the sales number being reported represents.
- 26) DOE requests comment on the certification reporting costs of the amendments proposed for EPSs.
- 27) DOE seeks comment on the proposed updates to reporting requirements for wired and fixed-location wireless battery chargers tested under appendix Y1.
- 28) DOE seeks comment on the proposal to further specify the reporting requirements for open-placement wireless battery chargers tested under appendix Y1.
- 29) DOE requests comment on the certification reporting costs of the amendments proposed for battery chargers.
- 30) DOE seeks comment on its proposal to require the reporting of net sensible cooling capacity in Btu/h, the net total cooling capacity in Btu/h, whether the basic model is split system or single-package, the configuration (e.g., downflow, upflow ducted, upflow non-ducted,

horizontal flow, ceiling-mounted ducted, ceiling-mounted non-ducted), fluid economizer presence (or lack thereof), condenser heat rejection medium (air, water, or glycol-cooled), NSenCOP, rated airflow in SCFM, and the refrigerant used to determine the represented values.

31) DOE seeks comment on its proposed supplemental testing instructions requirements for CRACs when certifying compliance with NSenCOP standards.

32) DOE seeks comment on its proposal to require the reporting of both indoor unit and outdoor unit individual model numbers for split-system CRACs.

33) DOE seeks comment on its proposal to specify a tolerance of 5 percent for CRAC verification tests for NSenCOP.

34) DOE requests comment on the certification reporting costs of the amendments proposed for CRACs.

35) DOE seeks comment on requiring the reporting of ISMRE2 and ISCOP2 to certify compliance with the standards applicable to DX-DOASes manufactured on or after May 1, 2024. DOE also seeks comment on reporting rated moisture removal capacity and rated supply airflow rate.

36) DOE seeks comment on its proposal to include reporting requirements for DX-DOASes with ventilation energy recovery systems.

37) DOE seeks comment on its proposal to require supplemental testing instruction file contents for DX-DOASes.

38) DOE requests comment on its proposal to add new reporting requirements for DX-DOASes.

- 39) DOE seeks comment on its proposal to require the reporting of new metrics, such as SEER2 and HSPF2.
- 40) DOE seeks comment on its proposal to correct the sampling provisions for three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF to reference appendix A.
- 41) DOE requests comment on the certification reporting costs of the amendments proposed for three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF.
- 42) DOE seeks comment on its proposal to require the reporting of thermal efficiency, storage volume, rated input, and whether the storage volume is determined using a weight-based test or the calculation-based method for commercial electric instantaneous water heaters of all storage volumes (except for residential-duty commercial electric instantaneous water heaters). DOE also seeks comment on its proposal to require the reporting of standby loss, whether the water heater initiates heating element operation based on a temperature-controlled call for heating that is internal to the water heater, whether the water heater includes an integral pump purge functionality, and the default duration of the pump off delay (for models equipped with integral pump purge) for electric instantaneous water heaters with storage volume greater than or equal to 10 gallons. Additionally, DOE seeks comment on its proposed calculation-based method for determining storage volume of electric instantaneous water heaters.
- 43) DOE seeks comment on its proposal to add a requirement for the reporting of rated input for commercial electric storage water heaters.

- 44) DOE requests comment on the certification reporting costs of the amendments proposed for commercial electric instantaneous water heaters and commercial electric storage water heaters.
- 45) DOE seeks comment on its proposal to align ACIM reporting requirement terminology with the amended terms.
- 46) DOE seeks comment on its proposal to establish rounding requirements for ACIMs.
- 47) DOE seeks comment on its proposal to correct the sampling provisions for ACIMs.
- 48) DOE requests comment on the certification reporting costs of the amendments proposed for ACIMs.
- 49) DOE seeks comment on its proposal to require the reporting of whether a basic model meets the definition of a CO₂ unit cooler.
- 50) DOE seeks comment on its proposal to require the reporting of whether a basic model meets the definition of a detachable single-packaged dedicated system or an attached split system.
- 51) DOE seeks comment on its proposal to require the reporting of whether a dedicated condensing system basic model includes flooded head pressure controls.
- 52) DOE seeks comment on its proposal to amend the reporting requirements and provide an option for manufactures to report compressor break-in.
- 53) DOE seeks comment on its proposal to require, if necessary to run a valid test, supplemental testing information as a PDF file at the time of certification.

- 54) DOE seeks comment on its proposal to require the reporting of the conditions at which the controls activate the ASH wire for walk-in doors with ASH controls.
- 55) DOE requests comment on its proposed additional certification reporting requirements for walk-in doors and refrigeration systems.
- 56) DOE requests comment on the certification reporting costs of the amendments proposed for walk-ins.
- 57) DOE requests comment on its proposal to require that date of manufacture be included on a panel nameplate, including its tentative conclusion that this would be technologically feasible and would not be burdensome to include. DOE also requests comment on its proposal to require CO2 unit coolers be labeled with the statement “Only CO2 is approved as a refrigerant for this system”, including its tentative conclusion that this would not be burdensome to include.
- 58) DOE seeks comment on its proposal to require certification of pump efficiency at BEP in percent, constant load pump energy rating (“PERCL”), and variable load pump energy rating (“PERVL”).
- 59) DOE requests comment on the certification reporting costs of the amendments proposed for commercial and industrial pumps.
- 60) DOE requests comment on the clarifying amendments to 10 CFR 429.62(b)(2) to better represent the intent of the instruction in appendix CC and 10 CFR 429.62(a)(5).
- 61) DOE seeks comment on requiring whether a basic model is variable-speed, and if so, to report the SACCFull, in Btu/h.

- 62) DOE requests comment on the certification reporting costs of the amendments proposed for portable ACs.
- 63) DOE seeks comment on the proposed annual filing date of September 1 for compressors.
- 64) DOE requests comment on the proposed annual filing date for compressors and any corresponding certification and reporting costs.
- 65) DOE seeks comment on the proposed reporting requirements for DPPPMs.
- 66) DOE seeks comment on the proposed rounding requirements for DPPPMs.
- 67) DOE requests comment on the certification reporting costs of the proposed new reporting requirements for DPPPMs.
- 68) DOE requests comment on the proposed reporting requirements for air cleaners.
- 69) DOE requests comment on the certification reporting costs of the proposed new reporting requirements for air cleaners.
- 70) DOE seeks comment on its proposed certification requirements for SPVUs of all rated capacities when certifying compliance with IEER standards.
- 71) DOE seeks comment on its proposed additional certification requirements for SPVUs with a cooling capacity less than 65,000 Btu/h.
- 72) DOE seeks comment on its proposed supplemental testing instructions requirements for SPVUs when certifying compliance with IEER standards, should such standards be adopted.
- 73) DOE seeks comment on its proposal to specify a tolerance of 10 percent for SPVU verification tests for IEER.

- 74) DOE has tentatively determined that these proposed amendments would not impose additional costs for manufacturers, because manufacturers of SPVUs are already submitting certification reports to DOE and should have readily available the information that DOE is proposing to collect as part of this rulemaking. DOE does not believe the revised reporting requirements will cause any appreciable change in reporting burden or hours as compared to what SPVU manufacturers are currently doing. DOE requests comment on the certification reporting costs of the amendments proposed for SPVUs.
- 75) DOE requests comment on the proposed correction to existing CFLK certification requirements.
- 76) DOE requests comment on the certification reporting costs of the amendments proposed for CFLKs.
- 77) DOE requests comment on the proposed updates to compliance dates listed in 10 CFR 429.12 and to the “covered equipment” definition in 10 CFR 431.2.

Additionally, DOE welcomes comments on other issues relevant to the conduct of this rulemaking that may not specifically be identified in this document.

VI. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this notice of proposed rulemaking and announcement of public meeting.

List of Subjects

10 CFR Part 429

Administrative practice and procedure, Confidential business information, Energy conservation, Household appliances, Imports, Intergovernmental relations, Reporting and recordkeeping requirements, Small businesses.

10 CFR Part 431

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

Signing Authority

This document of the Department of Energy was signed on August 28, 2023, by Francisco Alejandro Moreno, Acting Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the *Federal Register*.

Signed in Washington, DC, on August 28, 2023

FRANCISCO MORENO
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Date: 2023.08.28 08:09:59
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Francisco Alejandro Moreno
Acting Assistant Secretary for Energy Efficiency and Renewable Energy
U.S. Department of Energy

For the reasons stated in the preamble, DOE is proposing to amend parts 429 and 431 of Chapter II of Title 10, 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:

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

§429.4 [Amended]

2. Section 429.4 is amended by removing paragraph (b)(1) and redesignating paragraphs (b)(2) and (3) as paragraphs (b)(1) and (2), respectively.

3. Section 429.12 is amended by:

- a. Revising paragraph (b)(12) and (13) and paragraph (d);
- b. Removing paragraphs (i)(1) through (i)(5) and adding new paragraphs (i)(1) through (i)(3).

The revisions read as follows:

§429.12 General requirements applicable to certification reports.

* * * * *

(b) * * *

(12) If the test sample size is listed as “0” to indicate the certification is based upon the use of an alternate way of determining measures of energy conservation, identify the method used for determining measures of energy conservation (such as “AEDM,” or linear interpolation). Manufacturers of commercial packaged boilers, commercial water heating equipment, commercial refrigeration equipment, commercial HVAC equipment, central air conditioners and central air conditioning heat pumps, and walk-in coolers and walk-in freezers must provide the manufacturer's designation (name or other identifier) of the AEDM used; and

(13) Product specific information listed in §§ 429.14 through 429.68 of this chapter.

* * * * *

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

Table 1 to Paragraph (d)

Product category	Deadline for data submission
Portable air conditioners	February 1.
Fluorescent lamp ballasts; Compact fluorescent lamps; General service fluorescent lamps, general service incandescent lamps, and incandescent reflector lamps; Candelabra base incandescent lamps and intermediate base incandescent lamps; Ceiling fans; Ceiling fan light kits; Showerheads; Faucets; Water closets; and Urinals	March 1.
Water heaters; Consumer furnaces; Pool heaters; Commercial water heating equipment; Commercial packaged boilers; Commercial warm air furnaces; Commercial unit heaters; and Furnace fans	May 1.
Dishwashers; Commercial pre-rinse spray valves; Illuminated exit signs; Traffic signal modules and pedestrian modules; and Distribution transformers	June 1.
Room air conditioners; Central air conditioners and central air conditioning heat pumps; Commercial heating, ventilating, air conditioning (HVAC) equipment (excluding air-cooled, three-phase, small commercial package air conditioning and heating equipment with a cooling capacity of less than 65,000 British thermal units per hour and	July 1.

air-cooled, three-phase, variable refrigerant flow multi-split air conditioners and heat pumps with less than 65,000 British thermal units per hour cooling capacity); and Air-cooled, three-phase, small commercial package air conditioning and heating equipment with a cooling capacity of less than 65,000 British thermal units per hour and air-cooled, three-phase, variable refrigerant flow multi-split air conditioners and heat pumps with a cooling capacity of less than 65,000 British thermal units per hour.	
Consumer refrigerators, refrigerator-freezers, and freezers; Commercial refrigerators, freezers, and refrigerator-freezers; Automatic commercial ice makers; Refrigerated bottled or canned beverage vending machines; Walk-in coolers and walk-in freezers; and Consumer miscellaneous refrigeration products	August 1.
Torchieres; Dehumidifiers; Metal halide lamp ballasts and fixtures; External power supplies; Pumps; Dedicated-purpose pool pump motors; Compressors; and Battery chargers	September 1.
Residential clothes washers; Residential clothes dryers; Direct heating equipment; Cooking products; and Commercial clothes washers	October 1.
Air Cleaners	December 1.

* * * * *

(i) * * *

(1) Air cleaners, December 31, 2023.

(2) Dedicated-purpose pool pump motors, *(date 24 months after date of publication of a final rule amending pool pump motor standards)*.

(3) Direct expansion-dedicated outdoor air systems, May 1, 2024.

* * * * *

4. Section 429.16 is amended by:

- a. Revising paragraphs (b)(3)(i)(B), (b)(3)(ii)(B), and (b)(3)(iii)(A)(2);
- b. Adding new paragraph (e)(2)(vi); and
- c. Revising paragraph (e)(4)(iv).

The revisions and addition read as follows:

§429.16 Central air conditioners and central air conditioning heat pumps.

* * * *

(b) * *

(3) * *

(i) * *

(B) The upper 90 percent confidence limit (UCL) of the true mean divided by 1.05, where:

$$UCL = \bar{x} + t_{.90} \left(\frac{s}{\sqrt{n}} \right)$$

And $\bar{x}$ is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.90}$ is the Student's t-Distribution Values for a 90 percent one-tailed confidence interval with $n-1$ degrees of freedom (from appendix A). Round represented values of off-mode power consumption to the nearest watt.

(ii) * *

(B) The lower 90 percent confidence limit (LCL) of the true mean divided by 0.95, where:

$$LCL = \bar{x} - t_{.90} \left(\frac{s}{\sqrt{n}} \right)$$

And $\bar{x}$ is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.90}$ is the Student's t-Distribution Values for a 90 percent one-tailed confidence interval with $n-1$ degrees of freedom (from appendix A). Round represented values of EER, SEER, HSPF, EER2, SEER2, and HSPF2 to the nearest 0.05.

(iii) * * *

(A) * * *

(2) The lower 90 percent confidence limit (LCL) of the true mean divided by 0.95, where:

$$LCL = \bar{x} - t_{.90} \left(\frac{s}{\sqrt{n}} \right)$$

And $\bar{x}$ is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.90}$ is the Student's t-Distribution Values for a 90 percent one-tailed confidence interval with $n-1$ degrees of freedom (from appendix A).

* * *

(e) * * *

(2) * * *

(vi) For variable-speed coil only systems; whether the represented value is based on non-communicating or communicating control.

* * * * *

(4) * * *

(iv) For blower coil systems, the airflow-control settings associated with full load cooling operation; the airflow-control settings or alternative instructions for setting fan speed to the speed upon which the rating is based; and whether the system varies blower speeds with outdoor air conditions;

* * * * *

5. Section 429.19 is amended by:

a. Revising paragraphs (b)(2) and, (3); and

b. Adding paragraph (c).

The revisions and addition read as follows:

§429.19 Dishwashers.

* * * * *

(b)* * *

(2) Pursuant to § 429.12(b)(13), a certification report shall include the following public product-specific information: The estimated annual energy use in kilowatt hours per year (kWh/yr), the water consumption in gallons per cycle, and the capacity in number of place settings.

(3) Pursuant to §429.12(b)(13), a certification report shall include the following additional product-specific information—

(i) The presence of a soil sensor, and if yes, the number of cycles required to reach calibration;

(ii) The water inlet temperature used for testing in degrees Fahrenheit (°F);

(iii) The cycle selected for the energy test and whether that cycle is soil-sensing if testing is performed using appendix C1 to subpart B of part 430 of this chapter and the cycles selected for the sensor heavy response, sensor medium response, and sensor light response and whether these cycles are soil-sensing if testing is performed using appendix C2 to subpart B of part 430 of this chapter;

(iv) The options selected for the energy test if testing is performed using appendix C1 to subpart B of part 430 of this chapter and the options selected for the sensor heavy response, sensor medium response, and sensor light response if testing is performed using appendix C2 to subpart B of part 430 of this chapter;

(v) The average cleaning index for the sensor heavy response, sensor medium response, and sensor light response cycles if testing is performed using appendix C2 to subpart B of part 430 of this chapter (*see* section 5.1 of appendix C2 for the calculation of per-cycle cleaning index for each test cycle);

(vi) Indication of whether Cascade Complete Powder or Cascade with the Grease Fighting Power of Dawn was used as the detergent formulation. When certifying dishwashers, other than water re-use dishwashers, according to appendix C1 to subpart B of part 430 of this chapter:

(A) Before July 17, 2023, Cascade Complete Powder detergent may be used as the basis for certification in conjunction with the detergent dosing methods specified in either section 2.5.2.1.1 or section 2.5.2.1.2 of appendix C1. Cascade with the Grease Fighting Power of Dawn detergent may be used as the basis for certification only in conjunction with the detergent dosing specified in section 2.5.2.1.1 of appendix C1.

(B) Beginning July 17, 2023, Cascade Complete Powder detergent may be used as the basis for certification of newly certified basic models only in conjunction with the detergent dosing method specified in section 2.5.2.1.2 of appendix C1. Cascade with

the Grease Fighting Power of Dawn detergent may be used as the basis for certification only in conjunction with the detergent dosing specified in section 2.5.2.1.1 of appendix C1. Manufacturers may maintain existing basic model certifications made prior to July 17, 2023, consistent with the provisions of § 429.19(b)(3)(vi)(A).

(vii) The presence of a built-in water softening system, and if yes, the energy use in kilowatt-hours and the water use in gallons required for each regeneration of the water softening system, the number of regeneration cycles per year, and data and calculations used to derive these values;

(viii) Whether the product is a water re-use system dishwasher, and if yes, the energy use in kilowatt-hours and water use in gallons required for a drain out event, the energy use in kilowatt-hours and water use in gallons required for a clean out event, the number of drain out events per year, the number of clean out events per year, the water fill volume to calculate detergent dosage in gallons, and data and calculations used to derive these values, as applicable; and

(ix) The presence of a built-in reservoir, and if yes, the manufacturer-stated reservoir capacity in gallons, the prewash fill water volume in gallons and the main wash fill water volume in gallons if testing is performed using appendix C1 to subpart B of part 430 of this chapter, and the reservoir water consumption in gallons per cycle.

(c) Rounding requirements for representative values, including certified and rated values.

(1) The represented value of estimated annual energy use must be rounded to the nearest kilowatt hour per year.

(2) The represented value of water consumption must be rounded to the nearest 0.1 gallon per cycle.

6. Section 429.20 is amended by revising paragraphs (b) and (c) to read as follows:

§429.20 Residential clothes washers.

* * * * *

(b) Certification reports.

(1) The requirements of §429.12 are applicable to residential clothes washers; and

(2) Pursuant to §429.12(b)(13), a certification report shall contain the following public product-specific information:

(i) For residential clothes washers tested in accordance with appendix J: the energy efficiency ratio (EER) in pounds per kilowatt hour per cycle (lb/kWh/cycle), the water efficiency ratio (WER) in pounds per gallon per cycle (lb/gal/cycle), the clothes container capacity in cubic feet (cu ft), the corrected remaining moisture content (RMC) expressed as a percentage, the type of control system (automatic or semi-automatic), and the type of loading (top-loading or front-loading).

(ii) For residential clothes washers tested in accordance with appendix J2: the integrated modified energy factor (IMEF) in cu ft/kWh/cycle, the integrated water factor (IWF) in gal/cycle/cu ft, the clothes container capacity in cu ft, the corrected RMC expressed as a percentage, and the type of loading (top-loading or front-loading).

(3) Pursuant to 10 CFR 429.12(b)(13), a certification report must include the following additional product-specific information: a list of all cycle selections

comprising the complete energy test cycle for each basic model and the test cloth lot number used for certification testing.

(c) **Reported values.** Values reported pursuant to this subsection must be rounded as follows: MEF and IMEF to the nearest 0.01 cu ft/kWh/cycle, WF and IWF to the nearest 0.1 gal/cycle/cu ft, EER to the nearest 0.01 lb/kWh/cycle, WER to the nearest 0.01 lb/gal/cycle, RMC to the nearest 0.1 percentage point, and clothes container capacity to the nearest 0.1 cu ft.

* * * * *

7. Section 429.24 is amended by:

- a. Revising paragraph (a)(2) introductory text;
- b. Adding paragraphs (a)(3) and (4);
- c. Revising paragraph (b)(2); and
- d. Adding paragraph (c).

The revisions and additions read as follows:

§429.24 Pool heaters.

(a) * * *

(2) For each basic model of pool heater, randomly select and test a sample of sufficient size to ensure that any represented value of the thermal efficiency or integrated thermal efficiency, as applicable, or other measure of energy consumption of a basic model for which consumers would favor higher values shall be less than or equal to the lower of:***

* * * * *

(3) When certifying integrated thermal efficiency, the represented value for input capacity of a gas-fired pool heater basic model reported in accordance with paragraph (b)(2) of this section must be the mean of the input capacities measured for each

tested unit of the basic model, as determined in accordance with the test procedure in appendix P of subpart B of part 430 of this chapter.

(4) When certifying integrated thermal efficiency, the represented value of active electrical power of an electric pool heater basic model reported in accordance with paragraph (b)(2) of this section must be the mean of the electrical power measured for each tested unit of the basic model, as determined in accordance with the test procedure in appendix P of subpart B of part 430 of this chapter.

(b) * * *

(2) Pursuant to §429.12(b)(13), include in each certification report the following public product-specific information:

(i) For gas-fired pool heaters: the input capacity in British thermal units per hour (Btu/h) and either the thermal efficiency as a percentage (%) (when certifying compliance with the energy conservation standards specified at §430.32(k)(1)) or the integrated thermal efficiency as a percentage (%) (when certifying compliance with the energy conservation standards specified at §430.32(k)(2)), as applicable.

(ii) For electric pool heaters (when certifying compliance with the energy conservation standards specified at §430.32(k)(2)): the integrated thermal efficiency in percent (%) and the active electrical power in British thermal units per hour (Btu/h).

(c) *Reported values.* Round reported values pursuant to this subsection as follows: integrated thermal efficiency for gas-fired pool heaters to the nearest tenth of one percent, integrated thermal efficiency for electric pool heaters to the nearest one percent, input capacity of a gas-fired pool heater to the nearest 1,000 Btu/h, and active electrical power of an electric pool heater to the nearest 1,000 Btu/h.

§429.33 [Amended]

8. Section 429.33 is amended by removing the text “For each basic model of lamp and/or each basic model of non-consumer-replaceable SSL packaged with the ceiling fan light kit” and adding in its place the text “For each basic model of lamp, each basic model of consumer-replaceable SSL, and/or each basic model of non-consumer-replaceable SSL packaged with the ceiling fan light kit”.

§429.36 [Amended]

9. Section 429.36 is amended by:
- a. Removing paragraph (b)(2)(i);
 - b. Redesignating paragraph (b)(2)(ii) as (b)(2)(i); and
 - c. Reserving paragraph (b)(2)(ii).)
10. Section 429.37 is amended by:
- a. Revising paragraphs (b)(2) and (3); and
 - b. Adding paragraph (c)(1)(iv).

The revisions and addition read as follows:

§429.37 External power supplies.

(b) * * *

(2) Pursuant to §429.12(b)(13), a certification report shall include the following public product-specific information:

- (i) External power supplies: The average active mode efficiency as a percentage (%), no-load mode power consumption in watts (W), nameplate output power in watts

(W), nameplate output voltage in volts (V), the specifications of the recommended or included output cord, and, if missing from the nameplate, the output current in amperes (A) of the basic model or the output current in amperes (A) of the highest- and lowest-voltage models within the external power supply design family.

(ii) Switch-selectable single-voltage external power supplies: The average active mode efficiency as a percentage (%) value, no-load mode power consumption in watts (W) using the lowest and highest selectable output voltages, the lowest and highest selectable output voltages in volts (V), nameplate output power in watts (W), the specifications of the recommended or included output cord, and, if missing from the nameplate, the output current in amperes (A).

(iii) Adaptive single-voltage external power supplies: The average active-mode efficiency as a percentage (%) at the highest and lowest nameplate output voltages, no-load mode power consumption in watts (W), nameplate output power in watts (W) at the lowest and highest nameplate output voltages, the lowest and highest nameplate output voltages in volts (V), the specifications of the recommended or included output cord, and, if missing from the nameplate, the output current in amperes (A) at the highest and lowest nameplate output voltages.

(iv) External power supplies that are exempt from no-load mode requirements under § 430.32(w)(5) of this chapter: A statement that the product is designed to be connected to a security or life safety alarm or surveillance system component, the average active-mode efficiency as a percentage (%), the nameplate output power in watts (W), the nameplate output voltage in volts (V), the specifications of the recommended or included output cord, and, if missing from the nameplate, the certification report must also include the output current in amperes (A) of the basic

model or the output current in amperes (A) of the highest- and lowest-voltage models within the external power supply design family.

(3) Pursuant to § 429.12(b)(13), a certification report for external power supplies that are exempt from the energy conservation standards at § 430.32(w)(1)(ii) pursuant to § 430.32(w)(2) of this chapter must include the following additional information if, in aggregate, the total number of exempt EPSs sold as spare and service parts by the certifier exceeds 1,000 units across all models: The total number of units of exempt external power supplies sold during the most recent 12-calendar-month period ending on July 31, starting with the annual report due on September 1, 2017. The certification report must also include the exact timeframe (*e.g.*, from August 2016 to July 2017) of this most recent 12-calendar-month period.

(c) * * *

(1) * * *

(iv) The exact timeframe (*e.g.*, from August 2016 to July 2017) of this most recent 12-calendar-month period.

* * * * *

11. Section 429.39 is amended by:

- a. Revising paragraphs (a)(1), (a)(2)(ii) introductory text, and (a)(2)(iii);
- b. Adding paragraphs (a)(2)(v) and (vi);
- c. Revising paragraphs (b)(2) and (3); and
- e. Adding paragraphs (b)(5) and (6);

The revisions and additions read as follows:

§429.39 Battery chargers.

(a) * * *

(1) *Represented values include:*

(i) For all battery chargers other than uninterruptible power supplies (UPSs) tested under appendix Y: The unit energy consumption (UEC) in kilowatt-hours per year (kWh/yr), battery discharge energy (E_{batt}) in watt hours (Wh), 24-hour energy consumption (E_{24}) in watt hours (Wh), maintenance mode power (P_{m}) in watts (W), standby mode power (P_{sb}) in watts (W), off mode power (P_{off}) in watts (W), and duration of the charge and maintenance mode test (t_{cd}) in hours (hrs);

(ii) For all wired and fixed-location wireless battery chargers other than uninterruptible power supplies (UPSs) tested under appendix Y1: Battery discharge energy (E_{batt}) in watt hours (Wh), active charge energy (E_{a}) in watt hours (Wh), maintenance mode power (P_{m}) in watts (W), no-battery mode power (P_{nb}) in watts (W), standby mode power (P_{sb}) in watts (W), off mode power (P_{off}) in watts (W), and duration of the charge and maintenance mode test (t_{cd}) in hours (hrs);

(iii) For all open-placement wireless battery chargers other than uninterruptible power supplies (UPSs) tested under appendix Y1: no-battery mode power (P_{nb}) in watts (W);

(iv) For UPSs: average load adjusted efficiency (Eff_{avg}).

(2) * * *

(ii) For each basic model of battery chargers other than UPSs tested under appendix Y, a sample of sufficient size must be randomly selected and tested to ensure that the represented value of UEC is greater than or equal to the higher of: ***

* * * * *

(iii) For each basic model of battery chargers other than UPSs tested under appendix Y, using the sample from paragraph (a)(2)(ii) of this section, calculate the represented values of each metric (*i.e.*, maintenance mode power (P_{m}), standby power

(P_{sb}), off mode power (P_{off}), battery discharge energy (E_{batt}), 24-hour energy consumption (E₂₄), and duration of the charge and maintenance mode test (t_{cd})), where the represented value of the metric is:

* * * * *

(v) For each basic model of battery chargers other than UPSs tested under appendix Y1, a sample of sufficient size must be randomly selected and tested to ensure that the represented value of E_a for all wired and fixed-location wireless chargers (or the represented value of P_{nb} for all open-placement wireless chargers) is greater than or equal to the higher of:

(A) The mean of the sample, where:

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

and, $\bar{x}$ is the sample mean; n is the number of samples; and x_i is the E_a (or P_{nb}, when applicable) of the i th sample; or,

(B) The upper 97.5-percent confidence limit (UCL) of the true mean divided by 1.05, where:

$$UCL = \bar{x} + t_{0.975} \left(\frac{s}{\sqrt{n}} \right)$$

and, $\bar{x}$ is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.975}$ is the Student's t-Distribution Values for a 97.5-percent one-tailed confidence interval with $n-1$ degrees of freedom (from appendix A of this subpart).

(vi) For each basic model of battery chargers other than UPSs tested under appendix Y1, using the sample from paragraph (a)(2)(v) of this section, calculate the applicable represented values of each metric (*i.e.*, maintenance mode power (P_m), no-battery mode power (P_{nb}), standby power (P_{sb}), off mode power (P_{off}), battery

discharge energy (E_{batt}), and duration of the charge and maintenance mode test (t_{cd}), where the represented value of the metric is:

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

and, $\bar{x}$ is the sample mean; n is the number of samples; and x_i is the measured value of the i th sample for the metric.

(b) * * *

(2) Pursuant to § 429.12(b)(13), when tested under appendix Y, a certification report must include the following product-specific information for all battery chargers other than UPSs: The nameplate battery voltage of the test battery in volts (V), the nameplate battery charge capacity of the test battery in ampere-hours (Ah), and the nameplate battery energy capacity of the test battery in watt-hours (Wh). A certification report must also include the represented values, as determined in paragraph (a) of this section for the maintenance mode power (P_{m}), standby mode power (P_{sb}), off mode power (P_{off}), battery discharge energy (E_{batt}), 24-hour energy consumption (E_{24}), active charge energy (E_{a}) (optional, as measured in accordance with Appendix Y1) duration of the charge and maintenance mode test (t_{cd}), and unit energy consumption (UEC).

(3) Pursuant to § 429.12(b)(13), when tested under appendix Y, a certification report must include the following product-specific information for all battery chargers other than UPSs: The manufacturer and model of the test battery, and the manufacturer and model, when applicable, of the external power supply.

* * * * *

(5) Pursuant to § 429.12(b)(13), when tested under appendix Y1, a certification report must include the following product-specific information for all wired and fixed-location wireless battery chargers other than UPSs: The manufacturer and model of the test battery, the manufacturer and model, when applicable, of the external power supply, the nameplate battery voltage of the test battery in volts (V), the nameplate battery charge capacity of the test battery in ampere-hours (Ah), and the nameplate battery energy capacity of the test battery in watt-hours (Wh). A certification report must also include the represented values, as determined in paragraph (a) of this section for the maintenance mode power (P_m), no-battery mode power (P_{nb}), standby mode power (P_{sb}), off mode power (P_{off}), battery discharge energy (E_{batt}), 24-hour energy consumption (E_{24}), active charge energy (E_a), and duration of the charge and maintenance mode test (t_{cd}).

(6) Pursuant to § 429.12(b)(13), when tested under appendix Y1, a certification report must include the following product-specific information for all open-placement wireless battery chargers other than UPSs: The manufacturer and model, when applicable, of the external power supply. A certification report must also include the represented values, as determined in paragraph (a) of this section for the no-battery mode power (P_{nb}).

12. Section 429.43 is amended by:

- a. Amending the section heading;
- b. Revising paragraphs (b)(2)(v), (b)(2)(vi), and (b)(2)(ix);
- c. Adding paragraphs (b)(2)(xi) and (b)(3)(iii);
- d. Revising paragraphs (b)(4)(vi), (b)(4)(vii), and (b)(4)(viii); and

e. Adding paragraphs (b)(4)(x) and (b)(6).

The revisions and additions read as follows:

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

(b) * * *

(2) * * *

(v) Single package vertical air conditioners:

(A) When certifying compliance with an EER standard: The energy efficiency ratio (EER in British thermal units per Watt-hour (Btu/Wh)), and the rated cooling capacity in British thermal units per hour (Btu/h).

(B) When certifying compliance with an IEER standard: the integrated energy efficiency ratio (IEER in British thermal units per Watt-hour (Btu/Wh)), the rated cooling capacity in British thermal units per hour (Btu/h), and the rated airflow in standard cubic feet per minute (SCFM). For units with rated cooling capacity <65,000 Btu/h: whether the unit is weatherized or non-weatherized; and if non-weatherized, the airflow rate of outdoor ventilation air which is drawn in and conditioned as determined in accordance with §429.134(x)(3) of this chapter, while the equipment is operating with the same drive kit and motor settings used to determine the certified efficiency rating of the equipment.

(vi) Single package vertical heat pumps:

(A) When certifying compliance with an EER standard: the energy efficiency ratio (EER in British thermal units per Watt-hour (Btu/Wh)), and the coefficient of performance (COP), and the rated cooling capacity in British thermal units per hour (Btu/h).

(B) When certifying compliance with an IEER standard: the integrated energy efficiency ratio (IEER in British thermal units per Watt-hour (Btu/Wh)), and the

coefficient of performance (COP), the rated cooling capacity in British thermal units per hour (Btu/h) and the rated airflow in standard cubic feet per minute (SCFM). For units with cooling capacity <65,000 Btu/h: whether the unit is weatherized or non-weatherized; and if non-weatherized, the airflow rate of outdoor ventilation air which is drawn in and conditioned as determined in accordance with §429.134(x)(3) of this chapter, while the equipment is operating with the same drive kit and motor settings used to determine the certified efficiency rating of the equipment.

* * * * *

(ix) Computer room air-conditioners:

(A) When certifying compliance with a SCOP standard: The net sensible cooling capacity in British thermal units per hour (Btu/h), the net cooling capacity in British thermal units per hour (Btu/h), the configuration (upflow/downflow), economizer presence (yes or no), condenser medium (air, water, or glycol-cooled), sensible coefficient of performance (SCOP), and rated airflow in standard cubic feet per minute (SCFM)

(B) When certifying compliance with an NSenCOP standard: The net sensible cooling capacity in British thermal units per hour (Btu/h), the net total cooling capacity in British thermal units per hour (Btu/h), whether the basic model is split system or single-package, the configuration (downflow, upflow ducted, upflow non-ducted, horizontal flow, ceiling-mounted ducted, ceiling-mounted non-ducted), fluid economizer presence (yes or no), condenser heat rejection medium (air, water, or glycol-cooled), net sensible coefficient of performance (NSenCOP), rated airflow in standard cubic feet per minute (SCFM), and the refrigerant used to determine the represented values.

* * * * *

(xi) Direct-expansion dedicated outdoor air systems:

(A) When certifying compliance with an ISMRE2 standard: the integrated seasonal moisture removal efficiency 2 (ISMRE2 in lbs. of moisture per kilowatt-hour (lb/kWh)), the rated moisture removal capacity at Standard Rating Condition A according to Appendix B to Subpart F of Part 431 of this chapter (MRC in lbs of moisture per hour (lb/h)), and the rated supply airflow rate for 100% outdoor air applications (Q_{SA} in standard cubic feet per minute).

(B) When certifying compliance with an IS COP2 standard: the integrated seasonal coefficient of performance 2 (IS COP2 in Watts of heating per Watts of power input (W/W)).

(C) The configuration of the basic model number (*i.e.*, “single-package” or “split system”) shall also be provided.

* * * * *

(3) * * *

(iii) For direct-expansion dedicated outdoor air systems with ventilation energy recovery systems, method of determination of the EATR, sensible effectiveness, and latent effectiveness of the ventilation energy recovery system (name and version of certified performance modeling software or if the device was directly tested). The test method (*i.e.*, Option 1, or Option 2) for units rated based on testing and motor control settings (including rotational speed) for energy recovery wheels shall also be provided.

* * * * *

(4) * * *

(vi) Single package vertical air-conditioners:

(A) When certifying compliance with an EER standard: Any additional testing instructions, if applicable; if a variety of motors/drive kits are offered for sale as options in the basic model to account for varying installation requirements, the model number and specifications of the motor (to include efficiency, horsepower, open/closed, and number of poles) and the drive kit, including settings, associated with that specific motor that were used to determine the certified rating; and which, if any, special features were included in rating the basic model.

(B) When certifying compliance with an IEER standard: Compressor break-in period duration; rated indoor airflow in standard cubic feet per minute (SCFM); frequency or control set points including the required dip switch/control settings for step or variable speed components (*e.g.*, compressors, VFDs); rated indoor airflow in SCFM for each part-load point used in the IEER calculation and any special instructions required to obtain operation at each part-load point, such as frequency or control set points including dip switch/control settings for step or variable speed components (*e.g.*, compressors, VFDs); a statement whether the model will operate at test conditions without manufacturer programming; outdoor air-side attachments used for testing; any additional testing instructions, if applicable; and if a variety of motors/drive kits are offered for sale as options in the basic model to account for varying installation requirements, the model number and specifications of the motor (to include efficiency, horsepower, open/closed, and number of poles) and the drive kit, including settings, associated with that specific motor that were used to determine the certified rating; any additional applicable testing instructions, are also required.

(vii) Single package vertical heat pumps:

(A) When certifying compliance with an EER standard: Any additional testing instructions, if applicable; if a variety of motors/drive kits are offered for sale as options in the basic model to account for varying installation requirements, the model number and specifications of the motor (to include efficiency, horsepower, open/closed, and number of poles) and the drive kit, including settings, associated with that specific motor that were used to determine the certified rating; and which, if any, special features were included in rating the basic model.

(B) When certifying compliance with an IEER standard: The rated heating capacity in British thermal units per hour (Btu/h); compressor break-in period duration; rated indoor airflow in standard cubic feet per minute (SCFM) (in cooling mode); rated airflow in SCFM in heating mode if the unit is designed to operate with different airflow rates for cooling and heating mode; frequency or control set points including the required dip switch/control settings for step or variable speed components (*e.g.*, compressors, VFDs); rated indoor airflow in SCFM for each part-load point used in the IEER calculation and any special instructions required to obtain operation at each part-load point, such as frequency or control set points including dip switch/control settings for step or variable speed components (*e.g.*, compressors, VFDs); a statement whether the model will operate at test conditions without manufacturer programming; outdoor air-side attachments used for testing; any additional testing instructions, if applicable; and if a variety of motors/drive kits are offered for sale as options in the basic model to account for varying installation requirements, the model number and specifications of the motor (to include efficiency, horsepower, open/closed, and number of poles) and the drive kit, including settings, associated with that specific motor that were used to determine the certified rating; or any additional applicable testing instructions, are also required.

(viii) Computer room air-conditioners:

(A) When certifying compliance with a SCOP standard: Any additional testing instructions, if applicable; and which, if any, special features were included in rating the basic model.

(B) When certifying compliance with a NSenCOP standard: Compressor break-in period duration; frequency or control set points including the required dip switch/control settings for step or variable components (*e.g.*, compressors, VFDs); a statement whether the model will operate at test conditions without manufacturer programming; any additional testing instructions, if applicable; if a variety of motors/drive kits are offered for sale as options in the basic model to account for varying installation requirements, the model number and specifications of the motor (to include efficiency, horsepower, open/closed, and number of poles) and the drive kit, including settings, associated with that specific motor that were used to determine the certified rating.

* * * * *

(x) Direct-expansion dedicated outdoor air systems:

(A) *For units without ventilation energy recovery systems*: water flow rate in gallons per minute (gpm) for water-cooled and water-source units; rated ESP in inches of water column for the supply air stream; frequency or control set points for variable speed components (*e.g.*, compressors, VFDs); required dip switch/control settings for step or variable components (*e.g.*, reheat or head pressure control valves); a statement whether the model will operate at test conditions without manufacturer programming; if a variety of motors/drive kits are offered for sale as options in the basic model to account for varying installation requirements, the model number and

specifications of the motor (to include efficiency, horsepower, open/closed, and number of poles) and the drive kit, including settings, associated with that specific motor that were used to determine the certified rating; and any additional testing instructions specified in Appendix B to Subpart F of Part 431 of this chapter, if applicable (*e.g.*, supply air dry bulb temperatures for ISMRE2 tests, equipment settings for airflow, installation priority for split-system units, defrost control settings for air-source heat pump units, break-in period, or condenser head pressure controls).

(B) *For units with ventilation energy recovery systems*, the requirements in § 429.43(b)(4)(x)(A) apply, in addition to: rated ESP in inches of water column for the return air stream; exhaust air transfer ratio at the rated supply airflow rate and a neutral pressure difference between return and supply airflow (EATR as a percent value); sensible and latent effectiveness of the ventilation energy recovery system at 75% of the nominal supply airflow and zero pressure differential in accordance with the DOE test procedure in appendix B to subpart F of part 431 of this chapter; sensible and latent effectiveness of the ventilation energy recovery system at 100% of the nominal supply airflow and zero pressure differential in accordance with the DOE test procedure in appendix B to subpart F of part 431 of this chapter; and any additional testing instructions, if applicable (*e.g.*, deactivation of VERS or VERS bypass in accordance with Appendix B to Subpart F of Part 431 of this chapter)).

* * * * *

(6) Basic and individual model numbers. The basic model number and individual model number(s) required to be reported under §429.12(b)(6) must consist of the following:

(i) For computer room air-conditioners:

Single-Package or Split System?	Basic model number	Individual model number(s)	
		1	2
Single-Package	Number unique to the basic model	Package	N/A
Split System	Number unique to the basic model	Indoor Unit	Outdoor Unit

(ii) For direct-expansion dedicated outdoor air systems:

Equipment configuration	Basic model number	Individual model number(s)	
		1	2
Single-Package	Number unique to the basic model	Package	N/A
Split System	Number unique to the basic model	Outdoor Unit	Indoor Unit

* * * * *

13. Section 429.44 is amended by:

- a. Revising paragraph (c)(2)(i);
- b. Redesignating paragraph (c)(2)(vi) as (c)(2)(viii); and
- c. Adding new paragraphs (c)(2)(vi) and (c)(2)(vii).

The revisions and additions read as follows:

§429.44 Commercial water heating equipment.

(c) * * *

(2) * * *

(i) Commercial electric storage water heaters with storage capacity less than or equal to 140 gallons: The standby loss in percent per hour (%/h); the rated input in kilowatts (kW), and the measured storage volume in gallons (gal).

* * * * *

(vi) Commercial electric instantaneous water heaters with storage capacity greater than or equal to 10 gallons (excluding storage-type instantaneous water heaters with storage capacity greater than 140 gallons): The thermal efficiency in percent (%); the standby loss in percent per hour (%/h); the rated input in kilowatts (kW); and the measured storage volume in gallons (gal). For equipment that does not meet the definition of “storage-type instantaneous water heater” (as set forth in 10 CFR 431.102), the following must also be included in the certification report: whether the measured storage volume is determined using a weight-based test in accordance with §431.106 of this chapter or the calculation-based method in accordance with §429.72; whether the water heater will initiate heating element operation based on a temperature-controlled call for heating that is internal to the water heater (Yes/No); whether the water heater is equipped with an integral pump purge functionality (Yes/No); and if the water heater is equipped with integral pump purge, the default duration of the pump off delay (minutes).

(vii) Commercial electric instantaneous water heaters with storage capacity less than 10 gallons: The thermal efficiency in percent (%); the measured storage volume in gallons (gal); the rated input in kilowatts (kW); and whether the measured storage volume is determined using a weight-based test in accordance with §431.106 of this chapter or the calculation-based method in accordance with §429.72.

14. Section 429.45 is amended by:

- a. Revising paragraphs (a)(2)(ii) and (b)(2) and
- b. Adding paragraph (b)(3).

The revisions and additions read as follows:

§429.45 Automatic commercial ice makers.

(a) * * *

(2) * * *

(ii) The upper 95 percent confidence limit (UCL) of the true mean divided by 1.10, where:

$$UCL = \bar{x} - t_{0.95} \left(\frac{s}{\sqrt{n}} \right)$$

And $\bar{x}$ is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.95}$ is the Student's t-Distribution Values for a 95 percent one-tailed confidence interval with $n-1$ degrees of freedom (from appendix A to this subpart).

* * * * *

(b) * * *

(2) Pursuant to §429.12(b)(13), a certification report shall include the following public product-specific information: The energy use in kilowatt hours per 100 pounds of ice (kWh/100 lb), the condenser water use in gallons per 100 pounds of ice (gal/100 lb), the harvest rate in lb/24 h, the type of cooling, and the equipment type.

(3) For reporting, round harvest rate to the nearest 1 lb/24 h for harvest rates above 50 lb/24 h; round harvest rate to the nearest 0.1 lb/24 h for harvest rates less than or equal to 50 lb/24 h; round condenser water use to the nearest 1 gal/100 lb; and round energy use to the nearest 0.01 kWh/100 lb.

15. Section 429.53 is amended by revising paragraph (b) to read as follows:

§429.53 Walk-in coolers and walk-in freezers.

* * * * *

(b) Certification reports.

(1) The requirements of §429.12 apply to manufacturers of walk-in cooler and walk-in freezer panels, doors, and refrigeration systems, and;

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

(i) For display and non-display doors:

(A) The door type;

(B) R-value of the door insulation (as applicable);

A declaration that the manufacturer has incorporated the applicable design requirements;

(D) For transparent reach-in display doors and windows, the glass type of the doors and windows (e.g., double-pane with heat reflective treatment, triple-pane glass with gas fill);

(E) Power draw of the antisweat heater in watts per square foot of door opening;

(F) Door energy consumption in kilowatt-hours per day;

(G) Rated surface area in square feet; and

(H) For doors with anti-sweat heater controls, the temperature and/or humidity conditions at which the anti-sweat heater turns on in degrees Fahrenheit.

(ii) For panels: The R-value of the insulation.

(iii) For refrigeration systems:

(A) The installed motor's functional purpose (i.e., evaporator fan motor or condenser fan motor), its rated horsepower, and a declaration that the manufacturer has incorporated the applicable walk-in-specific design requirements into the motor;

(B) The refrigeration system AWEF and net capacity in BTU/h

(C) The configuration tested for certification (*e.g.*, condensing unit only, unit cooler only, single-packaged dedicated system matched-pair; attached split-system; or detachable single-packaged system);

(D) Whether an indoor dedicated condensing unit is also certified as an outdoor dedicated condensing unit and, if so, the basic model number for the outdoor dedicated condensing unit; and

(E) Whether the certified basic model is designed for use with CO₂ as a refrigerant.

(3) Pursuant to § 429.12(b)(13), a certification report must include the following non-public product-specific information in addition to the information listed in paragraph (b)(2) of this section:

(i) For display and non-display doors:

(A) The rated power of each light, heater wire, and/or other electricity consuming device associated with each basic model of display and non-display door; and whether such device(s) has a timer, control system, or other demand-based control reducing the device's power consumption; and

(B) The conduction load through the door in Btu/h.

(ii) For refrigeration systems:

(3) (A) Whether the dedicated condensing system using flooded head pressure controls; and

(B) The compressor break-in period, if.

(4) Pursuant to § 429.12(b)(13), a certification report must include supplemental information submitted in PDF format. The equipment-specific supplemental information must be consistent with the equipment's installation or operating instructions; include any additional testing and testing set up instructions (*e.g.*,

charging instructions) for the basic model; identify all special features that were included in rating the basic model; include 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., operating manuals and/or installation instructions) for DOE to consider when performing testing under appendix C and appendix C1 to subpart R of part 431.

16. Section 429.59 is amended by:

- a. Revising paragraphs (b)(2)(i), (ii), and (iii);
- b. Removing paragraphs (b)(3)(i), (ii), and (iii); and
- c. Redesignating paragraph (b)(3)(iv) as (b)(3)(i), and reserving paragraph (b)(3)(ii).

The revisions read as follows:

§429.59 Pumps.

* * * * *

(b) * * *

(2) * * *

(i) For a pump subject to the test methods prescribed in section III of appendix A to subpart Y of part 431 of this chapter: PEI_{CL}; pump total head in feet (ft.) at BEP and nominal speed; volume per unit time (flow rate) in gallons per minute (gpm) at BEP and nominal speed; the nominal speed of rotation in revolutions per minute

(rpm); calculated driver power input at each load point i (P_{ini}), corrected to nominal speed, in horsepower (hp); full impeller diameter in inches (in.); pump efficiency at BEP in percent (%); PER_{CL} ; and for RSV and ST pumps, the number of stages tested.

(ii) For a pump subject to the test methods prescribed in section IV or V of appendix A to subpart Y of part 431 of this chapter: PEI_{CL} ; pump total head in feet (ft.) at BEP and nominal speed; volume per unit time (flow rate) in gallons per minute (gpm) at BEP and nominal speed; the nominal speed of rotation in revolutions per minute (rpm); driver power input at each load point i (P_{ini}), corrected to nominal speed, in horsepower (hp); full impeller diameter in inches (in.); whether the PEI_{CL} is calculated or tested; pump efficiency at BEP in percent (%); PER_{CL} ; and for RSV and ST pumps, number of stages tested.

(iii) For a pump subject to the test methods prescribed in section VI or VII of appendix A to subpart Y of part 431 of this chapter: PEI_{VL} ; pump total head in feet (ft.) at BEP and nominal speed; volume per unit time (flow rate) in gallons per minute (gpm) at BEP and nominal speed; the nominal speed of rotation in revolutions per minute (rpm); driver power input (measured as the input power to the driver and controls) at each load point i (P_{ini}), corrected to nominal speed, in horsepower (hp); full impeller diameter in inches (in.); whether the PEI_{VL} is calculated or tested; pump efficiency at BEP in percent (%); PER_{VL} ; and for RSV and ST pumps, the number of stages tested.

* * * * *

17. Section 429.62 is amended by:

a. Revising paragraph (b)(2); and

b. Adding paragraph (b)(3).

The revisions read as follows:

§429.62 Portable air conditioners

* * * * *

(b) * * *

(2) Pursuant to §429.12(b)(13), a certification report shall include the following public product-specific information: The CEER in Btu/Wh, the seasonally adjusted cooling capacity in British thermal units per hour (Btu/h), the duct configuration used for testing (single-duct or dual-duct), the ability to operate in both configurations (yes or no), presence of heating function, and primary condensate removal feature (auto-evaporation, gravity drain, removable internal collection bucket, or condensate pump).

(3) Pursuant to §429.12(b)(13), a certification report shall include the following additional public product-specific information: whether the basic model is variable-speed (yes or no), and if yes; the full-load seasonally adjusted cooling capacity (SACC_Full), in British thermal units per hour (Btu/h).

18. Section 429.65 is amended by adding paragraphs (e) and (f) to read as follows:

§429.65 Dedicated-purpose pool pump motors.

* * * * *

(e) *Certification reports for dedicated purpose pool pump motors.*

(1) The requirements of §429.12 apply to dedicated-purpose pool pump 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 dedicated-purpose pool pump motor total horsepower as described at 10 CFR 429.65(c)(1)(v)

(ii) For all basic models with total horsepower less than 0.5 THP, the full-load efficiency in percent (%) as described at 10 CFR 43429.65

(iii) For all basic models with total horsepower greater than or equal to 0.5 THP: a statement confirming that the motor is a variable speed control dedicated purpose pool pump motor, as defined at 10 CFR 431.483; and a statement regarding whether freeze protection is shipped enabled or disabled; for dedicated-purpose pool pump motors distributed in commerce with freeze protection controls enabled: The default dry-bulb air temperature setting (in °F), default run time setting (in minutes), maximum operating speed (in revolutions per minute, or rpm), and default motor speed in freeze protection mode (in revolutions per minute, or rpm)

(f) *Rounding Requirements.*

(1) Round dedicated-purpose-pool pump motor total horsepower to the nearest hundredth of a THP;

(2) Round full-load efficiency to the nearest tenth of a percent;

(3) For dedicated-purpose pool pump motor basic models with total horsepower greater than or equal to 0.5 THP and distributed in commerce with freeze protection controls enabled, round the dry-bulb temperature setting, run time setting, maximum

operating speed, and default motor speed in freeze protection mode to the nearest whole number.

19. Section 429.67 is amended by:

- a. Revising paragraphs (c)(2)(ii)(A)(2), (f)(2)(i), (f)(3)(i) and (ii); and
- b. Adding paragraph (f)(4).

The revisions read as follows:

§429.67 Air-cooled, three-phase, small commercial package air conditioning and heating equipment with a cooling capacity of less than 65,000 British thermal units per hour and air-cooled, three-phase, variable refrigerant flow multi-split air conditioners and heat pumps with a cooling capacity of less than 65,000 British thermal units per hour.

* * * * *

(c) * * *

(2) * * *

(ii) * * *

(A) * * *

(2) The lower 90 percent confidence limit (LCL) of the true mean divided by 0.95, where:

$$LCL = \bar{x} - t_{.90}\left(\frac{s}{\sqrt{n}}\right)$$

And $\bar{x}$ is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.90}$ is the Student's t-Distribution Values for a 90 percent one-tailed confidence interval with $n-1$ degrees of freedom (from appendix A of this part).

* * *

(f) * * *

(2) Pursuant to § 429.12(b)(13), for each individual model (for single-package systems) or individual combination (for split-systems, including outdoor units with no match and “tested combinations” for multi-split, multi-circuit, and multi-head mini-split systems), a certification report must include the following public equipment-specific information:

(i) Commercial package air conditioning equipment that is air-cooled with a cooling capacity of less than 65,000 Btu/h (3-Phase):

(A) When certifying compliance with a SEER standard: The seasonal energy efficiency ratio (SEER in British thermal units per Watt-hour (Btu/Wh)), and the rated cooling capacity in British thermal units per hour (Btu/h).

(B) When certifying compliance with a SEER2 standard: the seasonal energy efficiency ratio 2 (SEER2 in British thermal units per Watt-hour (Btu/Wh)) and the rated cooling capacity in British thermal units per hour (Btu/h).

(ii) Commercial package heating equipment that is air-cooled with a cooling capacity of less than 65,000 Btu/h (3-Phase):

(A) When certifying compliance with an HSPF standard: The seasonal energy efficiency ratio (SEER in British thermal units per Watt-hour (Btu/Wh)), the heating seasonal performance factor (HSPF in British thermal units per Watt-hour (Btu/Wh)), and the rated cooling capacity in British thermal units per hour (Btu/h).

(B) When certifying compliance with an HSPF2 standard: the seasonal energy efficiency ratio 2 (SEER2 in British thermal units per Watt-hour (Btu/Wh)), the heating seasonal performance factor 2 (HSPF2 in British thermal units per Watt-hour (Btu/Wh)) and the rated cooling capacity in British thermal units per hour (Btu/h).

(iii) Variable refrigerant flow multi-split air conditioners that are air-cooled with rated cooling capacity of less than 65,000 Btu/h (3-Phase):

(A) When certifying compliance with a SEER standard: The seasonal energy efficiency ratio (SEER in British thermal units per Watt-hour (Btu/Wh)), and the rated cooling capacity in British thermal units per hour (Btu/h).

(B) When certifying compliance with a SEER2 standard: the seasonal energy efficiency ratio 2 (SEER2 in British thermal units per Watt-hour (Btu/Wh)) and the rated cooling capacity in British thermal units per hour (Btu/h).

(iv) Variable refrigerant flow multi-split heat pumps that are air-cooled with rated cooling capacity of less than 65,000 Btu/h (3-Phase):

(A) When certifying compliance with an HSPF standard: The seasonal energy efficiency ratio (SEER in British thermal units per Watt-hour (Btu/Wh)), the heating seasonal performance factor (HSPF in British thermal units per Watt-hour (Btu/Wh)), and the rated cooling capacity in British thermal units per hour (Btu/h).

(B) When certifying compliance with an HSPF2 standard: the seasonal energy efficiency ratio 2 (SEER2 in British thermal units per Watt-hour (Btu/Wh)), the heating seasonal performance factor 2 (HSPF2 in British thermal units per Watt-hour (Btu/Wh)) and the rated cooling capacity in British thermal units per hour (Btu/h).

(3) * * *

(i) Air cooled commercial package air conditioning equipment with a cooling capacity of less than 65,000 Btu/h (3-phase): The nominal cooling capacity in British

thermal units per hour (Btu/h); rated airflow in standard cubic feet per minute (SCFM) for each fan coil; rated static pressure in inches of water; refrigeration charging instructions (*e.g.*, refrigerant charge, superheat and/or subcooling temperatures); frequency or control set points for variable speed components (*e.g.*, compressors, VFDs); required dip switch/control settings for step or variable components; a statement whether the model will operate at test conditions without manufacturer programming; any additional testing instructions, if applicable; if a variety of motors/drive kits are offered for sale as options in the basic model to account for varying installation requirements, the model number and specifications of the motor (to include efficiency, horsepower, open/closed, and number of poles) and the drive kit, including settings, associated with that specific motor that were used to determine the certified rating; and which, if any, special features were included in rating the basic model. Additionally, when certifying compliance with a SEER2 standard, the supplemental information must also include: for models of outdoor units with no match, the following characteristics of the indoor coil: the face area, the coil depth in the direction of airflow, the fin density (fins per inch), the fin material, the fin style, the tube diameter, the tube material, and the numbers of tubes high and deep.

(ii) Commercial package heating equipment that is air-cooled with a cooling capacity of less than 65,000 Btu/h (3-phase): The nominal cooling capacity in British thermal units per hour (Btu/h); rated heating capacity in British thermal units per hour (Btu/h); rated airflow in standard cubic feet per minute (SCFM) for each fan coil; rated static pressure in inches of water; refrigeration charging instructions (*e.g.*, refrigerant charge, superheat and/or subcooling temperatures); frequency or control set points for variable speed components (*e.g.*, compressors, VFDs); required dip switch/control settings for step or variable components; a statement whether the

model will operate at test conditions without manufacturer programming; any additional testing instructions, if applicable; if a variety of motors/drive kits are offered for sale as options in the basic model to account for varying installation requirements, the model number and specifications of the motor (to include efficiency, horsepower, open/closed, and number of poles) and the drive kit, including settings, associated with that specific motor that were used to determine the certified rating; and which, if any, special features were included in rating the basic model. Additionally, when certifying compliance with an HSPF2 standard, the supplemental information must also include: for models of outdoor units with no match, the following characteristics of the indoor coil: the face area, the coil depth in the direction of airflow, the fin density (fins per inch), the fin material, the fin style, the tube diameter, the tube material, and the numbers of tubes high and deep.

* * *

(4) The basic model number and individual model number(s) required to be reported under §429.12(b)(6) must consist of the following:

Equipment type	Basic model number	Individual model number(s)		
		1	2	3
Single-Package (including Space-Constrained)	Number unique to the basic model	Package	N/A	N/A.
Single-Split System (including Space-Constrained and SDHV)	Number unique to the basic model	Outdoor Unit	Indoor Unit	If applicable—Air Mover (could be same as indoor unit if fan is part of indoor unit model number).
Multi-Split, Multi-Circuit, and Multi-Head Mini-Split System (including	Number unique to the basic model	Outdoor Unit	When certifying a basic model based on tested combination(s): * * *	If applicable—When certifying a basic model based on tested combination(s): * * *.

Space-Constrained and SDHV)			When certifying an individual combination: Each indoor units paired with the outdoor unit	When certifying an individual combination: Each air movers paired with the outdoor unit.
Outdoor Unit with No Match	Number unique to the basic model	Outdoor Unit	N/A	N/A.

20. Section 429.68 is amended by adding paragraph (b) to read as follows:

§429.68 Air cleaners.

* * * * *

(b) Certification reports.

(1) The requirements of §429.12 are applicable to air cleaners; and

(2) Pursuant to § 429.12(b)(13), a certification report shall include the following public product-specific information:

(i) Smoke clean air delivery rate (CADR) in cubic feet per minute (cfm);

(ii) Dust CADR in cfm;

(iii) Pollen CADR in cfm;

(iii) PM_{2.5} CADR in cfm;

(iv) Annual energy consumption in kilowatt hours per year (kWh/yr);

(v) Integrated energy factor in PM_{2.5} CADR per watt; and

(vi) Room size in square feet.

21. Section 429.70 is amended by revising Table 2 to paragraph (c)(5)(vi)(B) to read as follows:

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

* * * *

(c) * *

(5) * *

(vi) * *

(B) * *

Table 2 to paragraph (c)(5)(vi)(B)

Equipment	Metric	Applicable tolerance
Commercial Packaged Boilers	Combustion Efficiency Thermal Efficiency	5% (0.05) 5% (0.05)
Commercial Water Heaters or Hot Water Supply Boilers	Thermal Efficiency Standby Loss	5% (0.05) 10% (0.1)
Unfired Storage Tanks	R-Value	10% (0.1)
Air-Cooled, Split and Packaged ACs and HPs Greater than or Equal to 65,000 Btu/h Cooling Capacity and Less than 760,000 Btu/h Cooling Capacity	Energy Efficiency Ratio Coefficient of Performance Integrated Energy Efficiency Ratio	5% (0.05) 5% (0.05) 10% (0.1)
Water-Cooled, Split and Packaged ACs and HPs, All Cooling Capacities	Energy Efficiency Ratio Coefficient of Performance Integrated Energy Efficiency Ratio	5% (0.05) 5% (0.05) 10% (0.1)

Evaporatively-Cooled, Split and Packaged ACs and HPs, All Capacities	Energy Efficiency Ratio Coefficient of Performance Integrated Energy Efficiency Ratio	5% (0.05) 5% (0.05) 10% (0.1)
Water-Source HPs, All Capacities	Energy Efficiency Ratio Coefficient of Performance Integrated Energy Efficiency Ratio	5% (0.05) 5% (0.05) 10% (0.1)
Single Package Vertical ACs and HPs	Energy Efficiency Ratio Coefficient of Performance Integrated Energy Efficiency Ratio	5% (0.05) 5% (0.05) 10% (0.1)
Packaged Terminal ACs and HPs	Energy Efficiency Ratio Coefficient of Performance	5% (0.05) 5% (0.05)
Variable Refrigerant Flow ACs and HPs (Excluding Air-Cooled, Three-phase with Less than 65,000 Btu/h Cooling Capacity)	Energy Efficiency Ratio Coefficient of Performance Integrated Energy Efficiency Ratio	5% (0.05) 5% (0.05) 10% (0.1)
Computer Room Air Conditioners	Sensible Coefficient of Performance Net Sensible Coefficient of Performance	5% (0.05) 5% (0.05)
Direct Expansion-Dedicated Outdoor Air Systems	Integrated Seasonal Coefficient of Performance 2 Integrated Seasonal Moisture Removal Efficiency 2	10% (0.1) 10% (0.1)
Commercial Warm-Air Furnaces	Thermal Efficiency	5% (0.05)
Commercial Refrigeration Equipment	Daily Energy Consumption	5% (0.05)

* * * *

22. Section 429.72 is amended by revising paragraph (e) to read as follows:

§429.72 Alternative methods for determining non-energy ratings.

* * * *

(e) *Commercial instantaneous water heaters (other than storage-type instantaneous water heaters) and hot water supply boilers.* The storage volume of a commercial instantaneous water heater (other than storage-type instantaneous water heaters) or a hot water supply boiler basic model may be determined by performing a

calculation of the stored water volume based upon design drawings (including computer-aided design (CAD) models) or physical dimensions of the basic model. Any value of storage volume of a basic model reported to DOE in a certification of compliance in accordance with §429.44(c)(2)(iv)-(vii) or §429.44(c)(3)(iv)-(vii) (as applicable) must be calculated using the design drawings or physical dimensions, or measured as per the applicable provisions in the test procedures in §431.106 of this chapter. Calculations to determine storage volume must include all water contained within the water heater from the inlet connection(s) to the outlet connection(s). The storage volume of water contained in the water heater must then be computed in gallons.

23. Section 429.134 is amended by adding paragraph (q)(5) to read as follows:

§429.134 Product-specific enforcement provisions.

* * * * *

(q) * * *

(5) *Break-in period for refrigeration systems.* DOE will perform a compressor break-in period during assessment or enforcement testing using a duration specified by the manufacturer, not to exceed 20 hours, only if a break-in period duration is provided in the certification report.

* * * * *

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

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

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

25. Amend § 431.2 by revising the definition of “Covered equipment” to read as follows:

§431.2 Definitions.

* * * * *

Covered equipment means any electric motor, as defined in § 431.12; commercial heating, ventilating, and air conditioning, and water heating product (HVAC & WH product), as defined in § 431.2; commercial refrigerator, freezer, or refrigerator-freezer, as defined in § 431.62; automatic commercial ice maker, as defined in § 431.132; commercial clothes washer, as defined in § 431.152; fan or blower, as defined in § 431.172; distribution transformer, as defined in § 431.192; illuminated exit sign, as defined in § 431.202; traffic signal module or pedestrian module, as defined in § 431.222; unit heater, as defined in § 431.242; commercial prerinse spray valve, as defined in § 431.262; mercury vapor lamp ballast, as defined in § 431.282; refrigerated bottled or canned beverage vending machine, as defined in § 431.292; walk-in cooler and walk-in freezer, as defined in § 431.302; metal halide ballast and metal halide lamp fixture, as defined in § 431.322; compressor, as defined in § 431.342; small electric motor, as defined in § 431.442; pump, as defined in § 431.462; and dedicated purpose pool pump motor, as defined in § 431.483.

* * * * *

26. Amend § 431.305 by:

- a. Revising paragraphs (a)(1)(i) ;
- b Redesignate paragraph (a)(1)(ii);
- c. Adding new paragraph (a)(1)(ii);
- d. Revising paragraphs (b)(1)(i) ;
- e. Redesignate paragraphs (b)(1)(iii);
- f. Adding new paragraph (b)(1)(iii);
- g. Revising paragraphs (c)(1)(iv) and (v);
- h. Removing paragraphs (c)(1)(v)(A), (c)(1)(v)(B), and (c)(1)(v)(C); and
- i. Adding paragraph (c)(1)(vi).

The revisions and additions read as follows.

§431.305 Walk-in cooler and walk-in freezer labeling requirements.

(a) * * *

(1) * * *

(i) The panel brand or manufacturer;

(ii) The date of manufacture; and

(iii) One of the following statements, as appropriate:

(A) “This panel is designed and certified for use in walk-in cooler applications.”

(B) “This panel is designed and certified for use in walk-in freezer applications.”

(C) “This panel is designed and certified for use in walk-in cooler and walk-in freezer applications.”

* * *

(b) * * *

(1) * * *

(i) The door brand or manufacturer;

(ii) For non-display doors manufactured with foam insulation, the date of manufacture; and

(iii) One of the following statements, as appropriate:

(A) “This door is designed and certified for use in walk-in cooler applications.”

(B) “This door is designed and certified for use in walk-in freezer applications.”

(C) “This door is designed and certified for use in walk-in cooler and walk-in freezer applications.”

* * * * *

(c) * * *

(iv) If the refrigeration system is a dedicated condensing refrigeration system, and is not designated for outdoor use, the statement, “Indoor use only” (for a matched pair this must appear on the condensing unit);

(v) The following statement, as appropriate: “Only CO₂ is approved as a refrigerant for this system;” and

(vi) One of the following statements, as appropriate:

(A) “This refrigeration system is designed and certified for use in walk-in cooler applications.”

(B) “This refrigeration system is designed and certified for use in walk-in freezer applications.”

(C) “This refrigeration system is designed and certified for use in walk-in cooler and walk-in freezer applications.”

* * * * *