**DEPARTMENT OF ENERGY**

**10 CFR Part 429**

**[EERE–2012–BT–STD–0045]**

**RIN 1904–AE90**

# Energy Conservation Program for Appliance Standards: Certification for Ceiling Fan Light Kits, General Service Incandescent Lamps, Incandescent Reflector Lamps, Ceiling Fans, Consumer Furnaces and Boilers, Consumer Water Heaters, Dishwashers, and Commercial Clothes Washers, Battery Chargers, and Dedicated-Purpose Pool Pumps

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

**ACTION:** Final rule.

**SUMMARY:** The U.S. Department of Energy (''DOE'' or the ''Department'') is publishing a final rule to amend the certification provisions for ceiling fan light kits, general service incandescent lamps, incandescent reflector lamps, ceiling fans, consumer furnaces and boilers, consumer water heaters, dishwashers, commercial clothes washers, battery chargers, and dedicated-purpose pool pumps. DOE is amending the certification and reporting provisions for these products and equipment to ensure reporting 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.

**DATES:** The effective date of this rule is August 22, 2022. The final rule changes will be mandatory for the annual certification reports submitted for products and equipment beginning February 17, 2023. The incorporation of certain publications in this rule was approved by the Director of the Federal Register on December 17, 2012, and September 6, 2017.

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

A link to the docket web page can be found at *www.regulations.gov/docket/EERE-2012-BT-STD-0045.* The docket web page contains instructions on how to access all documents, including public comments, in the docket.

For further information on how to review the docket contact the Appliance and Equipment Standards Program staff at (202) 287–1445 or by email: *ApplianceStandardsQuestions@ee.doe.gov.*

**FOR FURTHER INFORMATION CONTACT:**

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**SUPPLEMENTARY INFORMATION:**

## Table of Contents



## I. Authority and Background

### *A. Authority*

The Energy Policy and Conservation Act, 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, as codified) Title III, Part B [2] of EPCA, Public Law 94–163, established the Energy Conservation Program for Consumer Products Other Than Automobiles, which sets forth a variety of provisions designed to improve energy efficiency. Title III, Part C [3] of EPCA, added by Public Law 95–619, Title IV, section 441(a), established the Energy Conservation Program for Certain Industrial Equipment. These products and equipment include ceiling fan light kits (''CFLKs''), general service incandescent lamps (''GSILs''), incandescent reflector lamps (''IRLs''), ceiling fans, consumer furnaces and boilers, consumer water heaters, dishwashers, commercial clothes washers (''CCWs''), battery chargers, and dedicated-purpose pool pumps (''DPPPs''), the subjects of this final rule. (42 U.S.C. 6292(a)(4–6) and (14); 42 U.S.C. 6295(u) and (ff); 42 U.S.C. 6311(1)(A) and (H))

[1] All references to EPCA in this document refer to the statute as amended through the Energy Act of 2020, Public Law 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 re-designated at Part A–1.

The energy conservation program under EPCA consists essentially of four parts: (1) testing, (2) labeling, (3) the establishment of 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. 6296; 42 U.S.C. 6316).

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

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 enforcement regulations that include reporting requirements for covered products and equipment including CFLKs, GSILs, IRLs, ceiling fans, consumer furnaces and boilers, consumer water heaters, dishwashers, CCWs, battery chargers, and DPPPs. See title 10 of the Code of Federal Regulations (''CFR'') part 429. The certification regulations 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 sold in the United States. Manufacturers of all covered products and covered equipment must submit a certification report before a basic model is distributed in commerce and annually thereafter. If a basic model is modified in a manner that increases the basic model's energy or water consumption or decreases its efficiency such that the certified rating is no longer supported by test data, the basic model must be re-rated and certified as a new basic model. 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. 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 part 429, 10 CFR part 430, and/or 10 CFR part 431 until two 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 part 429. On March 7, 2011, the Department 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 the Department's existing certification, compliance, and enforcement regulations for certain consumer products and commercial and industrial equipment covered under EPCA. 76 FR 12422.[4] Since that time, DOE has also completed multiple rulemakings regarding certification, compliance, and enforcement for specific covered products or equipment. See, for example, the May 5, 2014, final rule regarding certification of commercial and industrial heating, ventilating, air conditioning (''HVAC''), refrigeration, and water heating equipment. 79 FR 25486.

On August 6, 2021, DOE published a notice of proposed rulemaking (''NOPR'') that proposed to amend the certification and reporting requirements for the products and equipment that are the subjects of this final rule to ensure that DOE has the information necessary to determine the appropriate classification of products for the application of standards. 86 FR 43120 (''August 2021 Certification NOPR''). DOE received comments in response to the August 2021 Certification NOPR from the interested parties listed in Table II.1.

TABLE II.1—LIST OF COMMENTERS WITH WRITTEN SUBMISSIONS IN RESPONSE TO THE AUGUST 2021 CERTIFICATION NOPR

| Commenter(s) | Reference in this final rule | Document No. in docket | Commenter type |
|---|---|---|---|
| The Air-Conditioning, Heating, and Refrigeration Institute | AHRI | 166 | Trade Association. |
| Air Movement and Control Association International, Inc | AMCA | 159 | Trade Association. |
| American Lighting Association | ALA | 160 | Trade Association. |
| Appliance Standards Awareness Project, American Council for an Energy-Efficient Economy, Earthjustice, and Northwest Energy Efficiency Alliance. | Joint Commenters | 165 | Efficiency Organizations. |
| Association of Home Appliance Manufacturers | AHAM | 167 | Trade Association. |
| Bradford White Corporation | Bradford White | 163 | Manufacturer. |
| National Electrical Manufacturers Association | NEMA | 164 | Trade Association. |
| NSF International | NSF | 168 | Trade Association. |
| TIC Council Americas | TIC | 161 | Trade Association. |

[4] DOE subsequently published two correction documents on May 2, 2011 (to correct a drafting error and erroneous internal cross references) and on August 2, 2011 (to correct presentation of a formula). 76 FR 24762; 76 FR 46202, respectively.

DOE received an additional comment submission unrelated to the substance of the August 2021 Certification NOPR that is not addressed in this final rule.[5]

A parenthetical reference at the end of a comment quotation or paraphrase provides the location of the item in the public record.[6]

The following sections provides the relevant background for the products and equipment that are subject to this final rule.

1. Ceiling Fan Light Kits

CFLKs are ''covered products'' for which DOE is authorized to establish and amend energy conservation standards and test procedures. (42 U.S.C. 6291(50), 42 U.S.C. 6293(b)(16)(A)(ii), 42 U.S.C. 6295(ff)(2)–(5)) DOE's energy conservation standards for CFLKs are currently prescribed at 10 CFR 430.32(s). Test procedures for CFLKs are currently prescribed at 10 CFR 430.23; 10 CFR part 430, subpart B, appendix V, ''Uniform Test Method for Measuring the Energy Consumption of Ceiling Fan Light Kits With Pin-Based Sockets for Fluorescent Lamps'' (''appendix V''); and 10 CFR part 430, subpart B, appendix V1, ''Uniform Test Method for Measuring the Energy Consumption of Ceiling Fan Light Kits Packaged With Other Fluorescent Lamps (not Compact Fluorescent Lamps or General Service Fluorescent Lamps), Packaged With Other SSL Lamps (not Integrated LED Lamps), or With Integrated SSL Circuitry'' (''appendix V1''). The sampling requirements for determining represented values based on the results of testing of CFLKs are found at 10 CFR 429.33(a). The information that must be included in certification reports and submitted to DOE for CFLKs is found at 10 CFR 429.33(b).

CFLKs manufactured on or after January 1, 2007, and prior to January 21, 2020, must be packaged with lamps to fill all sockets, with additional standards applicable based on the type of lamp sockets. 10 CFR 430.32(s)(3)–(5). Lamps packaged with CFLKs with medium screw base sockets must meet efficacy standards, while medium screw base compact fluorescent lamps (''CFLs'') must additionally meet standards for lumen maintenance, rapid cycle stress, and lifetime. 10 CFR 432.32(s)(3). CFLKs with pin-based sockets for fluorescent lamps must use an electronic ballast and the lamp-ballast platform must meet efficacy standards. 10 CFR 432.32(s)(4). CFLKs with other than medium screw base or pin-based sockets must not be capable of operating with lamps that total more than 190 watts. 10 CFR 432.32(s)(5). The standards at 10 CFR 430.32(s)(3)–(5) are referred to collectively in this document as the ''January 1, 2007 standards.''

On December 24, 2015, DOE published a final rule (''December 2015 CFLK TP Final Rule'') making two key updates to its CFLK test procedure. 80 FR 80209. First, DOE updated the CFLK test procedure to require that representations of efficacy, including certifications of compliance with CFLK standards, be made according to the corresponding DOE lamp test procedures, where they exist (*e.g.,* for a CFLK with medium screw base sockets that is packaged with CFLs, the CFLK test procedure references the DOE test procedure for CFLs at 10 CFR 430.23(y)). 80 FR 80209, 80211. Second, DOE updated the CFLK test procedure by establishing in a separate appendix, *i.e.,* appendix V1, the test procedure for CFLKs packaged with inseparable light sources that require luminaire efficacy testing (*e.g.,* CFLKs with integrated solid-state lighting (''SSL'') circuitry) and for CFLKs packaged with lamps for which DOE test procedures did not exist. *Id.* at 80 FR 80212. With these changes, the December 2015 CFLK TP Final Rule aligned requirements for measuring efficacy of lamps and/or light sources in CFLKs with current DOE lamp test procedures.

DOE published a final rule on January 6, 2016, amending energy conservation standards (''ECS'') for CFLKs (''January 2016 CFLK ECS Final Rule''). 81 FR 580. In that final rule, DOE established amended standards based on the efficacy of the lamps (with additional requirements for medium base CFLs and pin-based fluorescent lamps) packaged with the CFLK, except where the lamps are not designed to be consumer replaceable from the CFLK (*i.e.,* integrated SSLs), in which case luminaire efficacy is used. 81 FR 580, 632. These amended standards apply to CFLKs manufactured on or after January 21, 2020,[7] and are referred to collectively in this document as the ''January 21, 2020 standards.'' *See* 10 CFR 430.32(s)(6). Representations regarding CFLKs subject to the January 21, 2020 standards must be based on the relevant test procedures as amended by the December 2015 CFLK TP Final Rule, including appendix V1 for CFLKs packaged with other fluorescent lamps (not compact fluorescent lamps or general service fluorescent lamps), packaged with other SSL products (not integrated LED lamps), or with integrated SSL circuitry. 10 CFR 430.23(x)(2).

Neither the December 2015 CFLK TP Final Rule nor the January 2016 CFLK ECS Final Rule amended the reporting requirements for CFLKs to reflect the updated metrics from the test procedure and amended standards. The reporting requirements at 10 CFR 429.33 continue to require manufacturers to report based on the January 1, 2007 standards, including information that is no longer relevant. This inconsistency between the reporting requirements and the January 21, 2020 standards may lead to confusion regarding which standards are applicable as well as the reporting of unnecessary information. In the August 2021 Certification NOPR, DOE proposed to update the reporting requirements to address the January 21, 2020, standards and remove the reporting requirements for the January 1, 2007 standards. 86 FR 43120, 43122.

2. GSILs and IRLs

GSILs and IRLs are ''covered products'' for which DOE is authorized to establish and amend energy conservation standards and test procedures. (42 U.S.C. 6292(a)(14)) DOE's existing test procedures for general service fluorescent lamps (''GSFLs''), IRLs, and GSILs appear at title 10 CFR part 430, subpart B, appendix R, ''Uniform Test Method for Measuring Average Lamp Efficacy (''LE''), Color Rendering Index (''CRI''), and Correlated Color Temperature (''CCT'') of Electric Lamps'' (''appendix R'').

DOE test procedures for GSFLs, IRLs, and GSILs are codified in appendix R and the associated sampling and reporting requirements are codified in 10 CFR 429.27. DOE standards for GSFLs, IRLs, and GSILs are codified respectively at 10 CFR 430.32(n)(1), (2), (4), (6), and (7) and (x).

[5] See comment from Lisa Halverson, EERE–2012–BT–STD–0045–162.

[6] The parenthetical reference provides a reference for information located in the docket of DOE's rulemaking to amend certification and reporting requirements for the subject products and equipment. (Docket No. EERE–2012–BT–STD–0045, which is maintained at *www.regulations.gov*). The references are arranged as follows: (commenter name, comment docket ID number, page of that document).

[7] After DOE's promulgation of final rules establishing energy conservation standards for CFLKs and ceiling fans, Congress enacted S. 2030, the ''Ceiling Fan Energy Conservation Harmonization Act'' (''the Act''), which was signed into law as Public Law 115–161 on April 3, 2018. The Act amended the compliance date for the CFLK standards to establish a single compliance date for the energy conservation standards for both CFLKs and ceiling fans. On May 16, 2018, DOE published a final rule that amended the compliance date for CFLKs in the relevant sections of the CFR by replacing ''January 7, 2019'' with ''January 21, 2020.'' 83 FR 22587.

On July 6, 2009, DOE published a final rule amending the test procedures for GSFLs, IRLs, and GSILs. 74 FR 31829. These amendments consisted largely of: (1) referencing the most current versions of several lighting industry test standards incorporated by reference; (2) adopting certain technical changes and clarifications; and (3) expanding the test procedures to accommodate new classes of lamps to which coverage was extended by the Energy Independence and Security Act of 2007 (Pub. L. 110–140). 74 FR 31829, 31832–31833. The final rule also addressed the then recently established statutory requirement to expand test procedures to incorporate a measure of standby mode and off mode energy consumption and determined that, because these modes of energy consumption were not applicable to the lamps, an expansion of the test procedures was not necessary. *Id.* at 74 FR 31833. Shortly thereafter, DOE again amended the test procedures to adopt reference ballast settings necessary for the additional GSFLs for which DOE was establishing standards. 74 FR 34080, 34096 (July 14, 2009).

DOE most recently amended the test procedures for GSFLs and GSILs in a final rule published on January 27, 2012. 77 FR 4203. DOE updated several references to the industry test standards referenced in DOE's test procedures and established a lamp lifetime test method for GSILs. 77 FR 4203, 4205–4208. In that final rule, DOE determined amendments to the existing test procedure for IRLs were not necessary. *Id.* at 77 FR 4208.

On June 3, 2021, DOE published a NOPR that proposed amendments to the test procedures for GSFL, IRLs, and GSILs. 86 FR 29888 (''June 2021 Lighting TP NOPR''). In the June 2021 Lighting TP NOPR, DOE proposed to update to the latest versions of the referenced industry test standards; clarify definitions, test conditions and methods; clarify test frequency and inclusion of cathode power in measurements for GSFLs; provide a test method for measuring the CRI of GSILs and IRLs and for measuring lifetime of IRLs; allow manufacturers to make voluntary (optional) representations of GSFLs at high frequency settings; and align sampling and certification reporting requirements with proposed test procedure terminology and with the Federal Trade Commission's labeling program. 86 FR 29888, 29891–29892.

On May 9, 2022, DOE published a final rule amending the definitions of GSIL and general service lamp (''GSL'') by bringing certain categories of lamps that had been excluded by statute from the definition of GSIL within the definitions of GSIL and GSL. The rule also expanded the definition of GSL to include IRLs. 87 FR 27461 (''May 2022 Definition Final Rule''). On May 9, 2022, DOE also published a final rule implementing a statutory backstop requirement applicable to GSLs, which prohibits the sale of any GSL that is less than 45 lumens per watt (lm/W). 87 FR 27439.

In the August 2021 Certification NOPR, DOE proposed to revise the reporting requirements to reflect the current energy conservation standards for GSILs and IRLs and include other characteristics in the certification report needed to determine the applicable product classes. 86 FR 43120, 43123.

3. Ceiling Fans

Ceiling fans are ''covered products'' for which DOE is authorized to establish and amend energy conservation standards and test procedures. (42 U.S.C. 6291(49), 42 U.S.C. 6293(b)(16)(A)(i) and (B), 42 U.S.C. 6295(ff)(1) and (6)(C)) DOE's existing test procedure for ceiling fans appears at 10 CFR 430.23 and appendix U of 10 CFR part 430 subpart B, ''Uniform Test Method for Measuring the Energy Consumption of Ceiling Fans'' (''appendix U''). Sampling and reporting requirements for ceiling fans are set forth at 10 CFR 429.32. DOE's existing energy conservation standards for ceiling fans are located in 10 CFR 430.32(s).

On July 25, 2016, DOE published a final rule that amended the test procedures for ceiling fans at appendix U. 81 FR 48620 (''July 2016 Ceiling Fan TP Final Rule''). On January 19, 2017, DOE established energy conservation standards for ceiling fans, expressed as the minimum allowable efficiency in terms of cubic feet per minute per watt (''CFM/W''), as a function of ceiling fan diameter in inches. These standards are applicable to all ceiling fans manufactured in, or imported into, the United States on and after January 21, 2020. 82 FR 6826, 6827 (''January 2017 Ceiling Fan ECS Final Rule'').

On December 27, 2020, the Energy Act of 2020 (Pub. L. 116–260) was signed into law, which, among other things, amended performance standards for large-diameter ceiling fans (''LDCFs'').[8] (42 U.S.C. 6295(ff)(6)(C)(i)(I), as codified) Specifically, section 1008 of the Energy Act of 2020 amended section 325(ff)(6) of EPCA to specify that LDCFs manufactured on or after January 21, 2020, are not required to meet minimum ceiling fan efficiency requirements in terms of the ratio of the total airflow to the total power consumption (*i.e.,* CFM/W) as established in the January 2017 Ceiling Fan ECS Final Rule. (42 U.S.C. 6295(ff)(6)(C)(i)(I), as codified) Instead, LDCFs are required to meet specified minimum efficiency requirements based on the Ceiling Fan Energy Index (''CFEI'') metric, with one standard based on operation of the fan at high speed and a second standard based on operation of the fan at 40 percent speed or the nearest speed that is not less than 40 percent speed. (42 U.S.C. 6295(ff)(6)(C)(i)(II), as codified)

On May 27, 2021, DOE published a final rule to amend the current regulations for LDCFs, corresponding to the provisions in the Energy Act of 2020. 86 FR 28469 (''May 2021 Technical Amendment''). The May 2021 Technical Amendment also implemented conforming amendments to the ceiling fan test procedure to ensure consistency with the Energy Act of 2020.

In the August 2021 Certification NOPR, DOE proposed to amend the ceiling fan reporting requirements to reflect the amended energy conservation standards adopted in the January 2017 Ceiling Fan ECS final rule and to amend the updated performance standards for LDCFs as established in the Energy Act of 2020. 86 FR 43120, 43123.

4. Consumer Furnaces and Boilers

Consumer furnaces and boilers are included in the list of ''covered products'' for which DOE is authorized to establish and amend energy conservation standards and test procedures.[9] (42 U.S.C. 6292(a)(5)) DOE's energy conservation standards for consumer furnaces and boilers are currently prescribed at 10 CFR 430.32(e). Test procedures for consumer furnaces and boilers are currently specified in 10 CFR part 430, subpart B, appendix N, ''Uniform Test Method for Measuring the Energy Consumption of Furnaces and Boilers'' (''appendix N''). Reporting requirements for consumer furnaces and boilers are set forth in 10 CFR 429.18.

The DOE test procedure for consumer furnaces and boilers at appendix N is used to determine the annual fuel utilization efficiency (''AFUE''), which, for gas-fired and oil-fired furnaces and

[8] A ''large-diameter ceiling fan'' is a ceiling fan that is greater than seven feet in diameter. 10 CFR part 430, subpart B, appendix U, section 1.11.

[9] The list of covered products includes ''furnaces;'' however, EPCA defines a ''furnace,'' in relevant part, as ''an electric central furnace, electric boiler, forced-air central furnace, gravity central furnace, or low-pressure steam or hot water boiler.'' (42 U.S.C. 6291(23)(C))

boilers accounts for fossil fuel consumption in active mode but does not include active mode electrical energy consumption. For gas-fired and oil-fired furnaces and boilers, AFUE accounts for fossil fuel consumption in standby mode and off mode, but AFUE does not account for standby mode and off mode electrical consumption. For electric furnaces and boilers, AFUE accounts for electrical energy consumption in active mode but does not account for standby mode and off mode electrical consumption. Appendix N includes separate provisions to determine the electrical energy consumption in standby mode (''$P_{W,SB}$'') and off mode (''$P_{W,OFF}$'') in watts for gas-fired, oil-fired, and electric furnaces and boilers.

On December 19, 2007, the Energy Independence and Security Act of 2007 (''EISA 2007''), Public Law 110–140, was signed into law. EISA 2007 amended EPCA so as to revise the AFUE requirements and establish design requirements for most consumer boiler product classes, and required compliance with the amended standards beginning on September 1, 2012. (42 U.S.C. 6295(f)(3)) For gas-fired hot water boilers, oil-fired hot water boilers, and electric hot water boilers, EISA 2007 requires that residential boilers have an automatic means for adjusting water temperature.[10] EISA 2007 also disallowed the use of constant-burning pilot lights in gas-fired hot water boilers and gas-fired steam boilers. EISA 2007 provided an exception for boilers that operate without any need for electricity or any electric connection, electric gauges, electric pumps, electric wires, or electric devices; those boilers were not required to meet the requirements outlined in EISA 2007 for other consumer boilers that require an electrical connection. (42 U.S.C. 6295(f)(3)(A)–(C)) The complete energy conservation standards and design requirements applicable to consumer furnaces and boilers, including those enacted in EISA 2007 and separately by DOE through final rules, are located at 10 CFR 430.32(e)(2)(ii)–(v). DOE published a final rule technical amendment in the **Federal Register** on July 28, 2008 (''July 2008 Technical Amendment''), to codify the energy conservation standard levels, design requirements, and compliance dates for residential boilers outlined in EISA 2007. 73 FR 43611.

On October 20, 2010, DOE published a final rule in the **Federal Register** amending its test procedure for consumer furnaces and boilers to establish a method for measuring the electrical energy use in standby mode and off mode for gas-fired and oil-fired boilers in satisfaction of 42 U.S.C. 6295(gg)(2)(A), which requires that test procedures for all covered products account for standby mode and off mode energy consumption. 75 FR 64621. DOE most recently updated its test procedure for consumer furnaces and boilers in a final rule published in the **Federal Register** on January 15, 2016 (''January 2016 Furnaces and Boilers TP Final Rule''). 81 FR 2628. The January 2016 Furnaces and Boilers TP Final Rule amended the existing DOE test procedure for consumer furnaces and boilers through a number of modifications designed to improve the consistency and accuracy of test results generated using the DOE test procedure and to reduce test burden. 81 FR 2628, 2629–2630.

On June 27, 2011, DOE published a direct final rule (''DFR'') in the **Federal Register** revising the energy conservation standards for consumer furnaces (as well as consumer central air conditioners and heat pumps) (''June 2011 Multi-Product ECS DFR''). 76 FR 37408. The June 2011 Multi-Product ECS DFR amended the existing energy conservation standards for non-weatherized gas furnaces, mobile home gas furnaces, and non-weatherized oil furnaces, and amended the compliance date (but left the existing standards in place) for weatherized gas furnaces. The June 2011 Multi-Product ECS DFR also established electrical standby mode and off mode standards for non-weatherized gas furnaces, mobile home gas furnaces, non-weatherized oil furnaces, mobile home oil furnaces, and electric furnaces. DOE confirmed the standards and compliance dates promulgated in the June 2011 Multi-Product ECS DFR in a notice of effective date and compliance dates published in the **Federal Register** on October 31, 2011. 76 FR 67037.[11]

DOE completed the most recent rulemaking cycle to amend the standards for consumer boilers by publishing a final rule in the **Federal Register** on January 15, 2016 (''January 2016 Boilers ECS Final Rule), as required under 42 U.S.C. 6295(f)(4)(C). 81 FR 2320. The January 2016 Boilers ECS Final Rule adopted new standby mode and off mode standards for consumer boilers in terms of $P_{W,SB}$ and $P_{W,OFF}$ in addition to amended AFUE energy conservation standards. Compliance with the new and amended standards for consumer boilers was required beginning January 15, 2021. 81 FR 2320, 2321.

In the August 2021 Certification NOPR, DOE proposed to require certification and reporting of standby mode and off mode energy consumption for certain product classes, consistent with the energy conservation standards for standby mode and off mode energy consumption adopted in the June 2011 Multi-Product ECS DFR and the January 2016 Boilers ECS Final Rule. 86 FR 43120, 43124. DOE also proposed to require certification of the type of ignition system for all gas-fired consumer boilers consistent with the prescriptive design requirement set forth in EISA 2007 and subsequently codified by DOE in the July 2008 Technical Amendment, which applies to all gas-fired consumer boilers. *Id.*

5. Grid-Enabled Consumer Water Heaters

Consumer water heaters are included in the list of ''covered products'' for which DOE is authorized to establish and amend energy conservation standards and test procedures. (42 U.S.C. 6292(a)(4)) DOE's energy conservation standards and test procedures for consumer water heaters are currently prescribed at 10 CFR 430.32(d) and 10 CFR part 430, subpart B, appendix E, respectively.

The Energy Efficiency Improvement Act of 2015 (''EEIA 2015''), Public Law 114–11, was enacted on April 30, 2015. EEIA 2015 amended EPCA, in relevant part, by adding definitions for ''grid-enabled water heater'' and ''activation lock'' at 42 U.S.C. 6295(e)(6)(A). These products are intended for use as part of an electric thermal storage or demand response program. Among the criteria

[10] The automatic means for adjusting water temperature must ensure that an incremental change in the inferred heat load produces a corresponding incremental change in the temperature of the water supplied by the boiler.

[11] Following DOE's adoption of the June 2011 Multi-Product ECS DFR, the American Public Gas Association (''APGA'') filed a petition for review with the United States Court of Appeals for the District of Columbia Circuit (''D.C. Circuit'') to invalidate the DOE rule as it pertained to non-weatherized natural gas furnaces and mobile home gas furnaces. Petition for Review, *American Public Gas Association, et al.* v. *Department of Energy, et al.,* No. 11–1485 (D.C. Cir. filed Dec. 23, 2011). On April 24, 2014, the D.C. Circuit granted a motion that approved a settlement agreement that was reached between DOE, APGA, and the various intervenors in the case, in which DOE agreed to a remand of the non-weatherized gas furnace and mobile home gas furnace portions of the June 2011 Multi-Product ECS DFR in order to conduct further notice-and-comment rulemaking. Accordingly, the D.C. Circuit's order vacated the June 2011 Multi-Product ECS DFR in part (*i.e.,* those portions relating to non-weatherized gas furnaces and mobile home gas furnaces) and remanded to the agency for further rulemaking. The energy conservation standards in the June 2011 Multi-Product ECS DFR for the other consumer furnace product classes (as well as central air conditioners and heat pumps) were left in place.

that define a ''grid-enabled water heater'' is an energy-related performance standard that is either an energy factor (''EF'') specified by a formula set forth in the statute, or an equivalent alternative standard that DOE may prescribe. (42 U.S.C. 6295(e)(6)(A)(ii)(III)(aa) and (bb)) In addition, the EEIA 2015 amendments to EPCA also directed DOE to require reporting on shipments and activations of grid-enabled water heaters and to establish procedures, if appropriate, to prevent product diversion for non-program purposes, and to publish related results. (42 U.S.C. 6295(e)(6)(C)–(D)) EEIA 2015 also required DOE to treat shipment data reported by manufacturers as confidential business information. (42 U.S.C. 6295(e)(6)(C)(iii)) On August 11, 2015, DOE published a final rule in the **Federal Register** (''August 2015 Water Heater ECS Final Rule'') that added definitions for ''grid-enabled water heater'' and ''activation lock'' to 10 CFR 430.2 and energy conservation standards for grid-enabled water heaters to 10 CFR 430.32(d). 80 FR 48004, 48009–48010. The August 2015 Water Heater ECS Final Rule did not establish provisions to require the reporting of shipments by manufacturers.

In the August 2021 Certification NOPR, DOE proposed to require each manufacturer to report annual shipments of their grid-enabled water heaters and to treat the annual shipments of grid-enabled water heaters as confidential business information. 86 FR 43120, 43125.

6. Dishwashers

Dishwashers are included in the list of ''covered products'' for which DOE is authorized to establish and amend test procedures and energy conservation standards. (42 U.S.C. 6292(a)(6)) DOE's test procedures for dishwashers are currently prescribed at 10 CFR 430.23(c) and appendix C1 to subpart B of 10 CFR part 430 (''appendix C1''). DOE's energy conservation standards for dishwashers are currently prescribed at 10 CFR 430.32(f).

DOE most recently amended its dishwasher test procedures in a final rule published October 31, 2012, which established appendix C1. 77 FR 65942, 65947. Appendix C1 is currently required to demonstrate compliance with the energy conservation standards prescribed at 10 CFR 430.32(f). The current version of the DOE test procedure includes provisions for determining estimated annual energy use and per-cycle water consumption, among other metrics. 10 CFR 430.23(c).

In the August 2021 Certification NOPR, DOE proposed adding a certification reporting requirement to ensure that any assessment or enforcement testing pursuant to 10 CFR 429.104 and 10 CFR 429.110, respectively, would be performed using the same detergent used by the manufacturer for certifying compliance with the energy conservation standards. 86 FR 43120, 43125.

7. Commercial Clothes Washers

CCWs are included in the list of ''covered equipment'' for which DOE is authorized to establish and amend energy conservation standards and test procedures. (42 U.S.C. 6311(1)(H)) EPCA requires the test procedures for CCWs to be the same as those established for consumer (residential) clothes washers (''RCWs''). (42 U.S.C. 6314(a)(8)) DOE's test procedures for CCWs are currently prescribed at 10 CFR 431.154 and reference DOE's test procedure for RCWs currently prescribed at appendix J2 to subpart B of 10 CFR part 430 (''appendix J2'').[12] DOE's energy conservation standards for CCWs are prescribed at 10 CFR 431.156(b).

DOE amended its CCW test procedures in a final rule published December 3, 2014. 79 FR 71624 (''December 2014 CCW TP Final Rule''). The December 2014 CCW TP Final Rule amended 10 CFR 431.152 to provide definitions for integrated water factor (''IWF'') and modified energy factor value calculated using appendix J2 (''$MEF_{J2}$'')—the metrics on which the current energy conservation standards are based—among other minor changes.

DOE further amended its test procedures for both RCWs and CCWs in a final rule published June 1, 2022 (''June 2022 RCW/CCW TP Final Rule''). 87 FR 33316. The June 2022 RCW/CCW TP Final Rule amended appendix J2 to further specify test conditions, instrument specifications, and test settings; address large clothes container capacities; add product-specific enforcement provisions; delete obsolete provisions; and consolidate all test cloth-related provisions and codify additional test cloth material verification procedures used by industry. 87 FR 33316, 33319. The June 2022 RCW/CCW TP Final Rule also established a new test procedure at appendix J to subpart B of 10 CFR part 430 (''appendix J''), which includes changes to the test cycles and load sizes required for testing as well as updates to certain test conditions and usage factors, among other changes. *Id.* The June 2022 RCW/CCW TP Final Rule also establishes new energy and water performance metrics, to be measured using the new appendix J, which are based on clothing load size rather than clothes container capacity: active-mode energy efficiency ratio (''AEER''), energy efficiency ratio (''EER''), and water efficiency ratio (''WER''). *Id.* The new test procedure will be used for the evaluation and issuance of updated efficiency standards for both RCWs and CCWs, as well as to determine compliance with the updated standards, should such standards be established.

In a final rule published on December 15, 2014, DOE amended the energy conservation standards and water standards for CCWs. 79 FR 74492 (''December 2014 CCW ECS Final Rule''). Compliance with the standards established in the December 2014 CCW ECS Final Rule was required beginning January 1, 2018. 79 FR 74492, 74493.

In the August 2021 Certification NOPR, DOE proposed to require reporting model characteristics used for determining applicable standards and for conducting product-specific enforcement provisions for clothes washers (which includes CCWs), and to specify rounding instructions for each newly reported value. 86 FR 43120, 43125.

8. Battery Chargers

Battery chargers are ''covered products'' for which DOE is authorized to establish and amend energy conservation standards and test procedures. (42 U.S.C. 6295(u)) DOE's energy conservation standards for battery chargers are currently prescribed at 10 CFR 430.32(z). The test procedures for battery chargers are currently prescribed at 10 CFR part 430, subpart B, appendix Y, ''Uniform Test Method for Measuring the Energy Consumption of Battery Chargers'' (''appendix Y''). The sampling and reporting requirements for battery chargers are set forth in 10 CFR 429.39.

On May 20, 2016, DOE published a final rule that established the test procedure for battery chargers at appendix Y. 81 FR 31827. In that final rule, DOE updated the battery selection criteria for multi-voltage, multi-capacity battery chargers; harmonized the instrumentation resolution and uncertainty requirements with the second edition of the International

[12] The test procedures for CCWs prescribed at 10 CFR 431.154 also reference appendix J1 to subpart B of 10 CFR part 430 (''appendix J1''). For CCWs, appendix J1 is required to demonstrate compliance with energy conservation standards applicable to CCWs manufactured before January 1, 2018. Any representations of compliance with the standards applicable to CCWs manufactured on or after January 1, 2018 must be based upon results generated using appendix J2.

Electrotechnical Commission (''IEC''') 62301 standard for measuring standby power; defined and excluded back-up battery chargers from the testing requirements; outlined provisions for conditioning lead acid batteries; specified sampling and certification requirements; and corrected typographical errors in the current test procedure. 81 FR 31827, 31828–31829.

On June 13, 2016, DOE established the current energy conservation standards for battery chargers, expressed as the maximum allowable unit energy consumption (''kWh/yr'') as a function of battery energy and voltage. 81 FR 38266.

Consistent with these prior regulatory amendments affecting battery chargers, DOE proposed to establish an annual filing date by which manufacturers would be required to submit the required certification information to DOE in the August 2021 Certification NOPR. 86 FR 43120, 43125–43126.

9. Dedicated-Purpose Pool Pumps

DPPPs are a subset of pumps, which are included in the list of ''covered equipment'' for which DOE is authorized to establish and amend energy conservation standards and test procedures. (42 U.S.C. 6311(1)(A)) DOE's test procedures for DPPPs are currently prescribed at 10 CFR 431.464(b) and DOE's energy conservation standards for DPPPs are prescribed at 10 CFR 431.465(f)–(h). The certification and reporting requirements for DPPPs are set forth in 10 CFR 429.59(b)(2)(iv) and (v) and (b)(3)(iv).

DOE's test procedure for determining DPPP energy efficiency was established in a final rule published on August 7, 2017. 82 FR 36858 (''August 2017 DPPP TP Final Rule''). The test procedure reflects the consensus of the Appliance Standards Rulemaking Federal Advisory Committee (''ASRAC'') negotiated rulemaking working group for DPPPs. (Docket No. EERE–2015–BT–STD–0008, Nos. 51 and 82) The August 2017 DPPP TP Final Rule also included certification and enforcement provisions for DPPPs. 82 FR 36858, 36907–36913.

In the August 2021 Certification NOPR, DOE proposed to clarify the certification reporting requirements for DPPPs in 10 CFR 429.59(b)(2)(iv) and (b)(3)(iv), in order to resolve potential confusion as to the scope of these provisions. 86 FR 43120, 43126.

## II. Synopsis of the Final Rule

In this final rule, DOE is updating the certification reporting requirements as follows:

(1) Align the CFLK certification reporting requirements at 10 CFR 429.33 with the CFLK energy conservation standards relating to: (a) efficacy for light sources in CFLKs; (b) lumen maintenance, lifetime, and rapid cycle stress testing for medium screw base CFLs in CFLKs; (c) electronic ballasts for pin-based fluorescent lamps in CFLKs; (d) test sample size; and (e) kind of lamp.

(2) Include rated voltage and lamp diameter for IRLs and initial lumen output for GSILs in certification reports to determine applicable energy conservation standards under the GSIL and IRL certification reporting requirements at 10 CFR 429.27. Additionally, for IRLs, include CRI in certification reports.

(3) Align the ceiling fan certification reporting requirements at 10 CFR 429.32 with existing energy conservation standards established in the January 2017 Ceiling Fan ECS Final Rule and the Energy Act of 2020. Additionally, specify rounding requirements for CFM/W and CFEI. Also, add a reporting requirement for standby power consumption for small-diameter ceiling fans.

(4) Align the consumer furnace and boiler certification reporting requirements at 10 CFR 429.18 with the existing energy conservation standards by requiring reporting of standby mode and off mode energy consumption for classes with existing standby mode and off mode energy conservation standards, and specify explicitly that the requirement for certifying the type of ignition system applies to all gas-fired boilers.

(5) Add certification provisions at 10 CFR 429.17 to require water heater manufacturers to report the number of annual shipments of grid-enabled water heaters.

(6) Add certification provisions at 10 CFR 429.19 to require dishwasher manufacturers to indicate use of a new detergent formulation that replaces the detergent formulation currently specified, which has been discontinued.

(7) Add certification provisions at 10 CFR 429.46 to require CCW manufacturers to report model characteristics used for determining applicable standards and for conducting product-specific enforcement provisions; and specify rounding instructions for these reported values.

(8) Establish an annual filing date in 10 CFR 429.12, by which manufacturers of battery chargers are required to submit the required certification information to DOE.

(9) Clarify the certification reporting requirements in 10 CFR 429.59 for DPPPs.

The adopted amendments are summarized in Table II.2 and compared to the reporting requirements prior to the amendment, and the reason for the adopted change is included as well.

TABLE II.2—SUMMARY OF CHANGES TO CERTIFICATION REPORTING REQUIREMENTS RELATIVE TO CURRENT CERTIFICATION REPORTING REQUIREMENTS

| Current DOE certification reporting requirements | Amended certification reporting requirements | Attribution |
|---|---|---|
| For CFLKs, no reporting requirement for efficacy for a lamp and integrated SSL circuitry. | Add reporting requirement to 10 CFR 429.33(b)(2)(ii)(A) for efficacy in lumens per watt (lm/W) and for lumen output in lumens (to determine the minimum efficacy standard) for a lamp and integrated SSL circuitry in a CFLK. | Required to verify whether the information provided is consistent with the certifier's statement of compliance with January 21, 2020, energy conservation standards. |
| For CFLKs, no reporting requirements for lumen maintenance at 1,000 hours, lumen maintenance at 40 percent of lifetime, the results of rapid cycle stress testing, and lifetime for medium screw base CFLs. | Add reporting requirements to 10 CFR 429.33(b)(2)(ii)(B) to specify the lumen maintenance at 1,000 hours in percent, lumen maintenance at 40 percent of lifetime in percent, number of units passing rapid cycle stress testing, and the lifetime in hours for medium screw base CFLs in a CFLK. | Required to verify whether the information provided is consistent with the certifier's statement of compliance with January 21, 2020, energy conservation standards. |
| For CFLKs, no reporting requirement specifying that a CFLK with pin-based sockets for fluorescent lamps have an electronic ballast. | Add reporting requirement to 10 CFR 429.33(b)(3)(ii)(C) to provide a declaration that CFLKs with pin-based sockets for fluorescent lamps have an electronic ballast. | Required to verify whether the information provided is consistent with the certifier's statement of compliance with January 21, 2020, energy conservation standards. |
| For CFLKs, no reporting requirement specifying that a CFLK is packaged with lamps to fill all sockets. | Add reporting requirement to 10 CFR 429.33(b)(3)(ii)(A) to provide a declaration that CFLKs are packaged with lamps to fill all sockets. | Required to verify whether the information provided is consistent with the certifier's statement of compliance with January 21, 2020, energy conservation standards. |

TABLE II.2—SUMMARY OF CHANGES TO CERTIFICATION REPORTING REQUIREMENTS RELATIVE TO CURRENT CERTIFICATION REPORTING REQUIREMENTS—Continued

| Current DOE certification reporting requirements | Amended certification reporting requirements | Attribution |
|---|---|---|
| For CFLKs, no reporting requirement for lab accreditation. | Add requirement to 10 CFR 429.33(b)(3)(ii)(B) for declaration that lamps packaged with CFLKs were tested by an International Laboratory Accreditation Cooperation (“ILAC”) accredited laboratory as required under 10 CFR 430.25. | Required to verify whether the information provided is consistent with the certifier’s statement of compliance with laboratory accreditation requirements in 10 CFR 430.25. |
| For CFLKs, no reporting requirement for test sample size or kind of lamp for basic model of lamp. | Add a reporting requirement to 10 CFR 429.33(b)(2)(ii)(A) to provide the test sample size and kind of lamp for each basic model of lamp in the CFLK. | Required to verify whether the information provided is consistent with the certifier’s statement of compliance with sampling requirements in 10 CFR 429.12(b). |
| For GSILs and IRLs, no reporting requirement for all metrics that aid in ensuring compliance. | Add reporting requirements for rated voltage, lamp diameter, and CRI for IRLs to 10 CFR 429.27(b)(2)(ii) and initial lumen output for GSILs to 10 CFR 429.27(b)(2)(iii). | Required to verify whether the information provided is consistent with the certifier’s statement of compliance with existing standards or product class characterizations. |
| For ceiling fans, reporting requirement includes number of speeds and design requirement declaration. | Add reporting requirements to 10 CFR 429.32(b)(2) and (3) for small diameter ceiling fans to include blade span, ceiling fan efficiency in CFM/W, declarations regarding multi-head fans along with additional product-specific information for small-diameter ceiling fans: standby power, blade edge thickness, airflow (CFM) at high speed, blade RPM at high speed, and the distance between the ceiling and the lowest point on the fan blades (in both hugger and standard configurations for multi-mount fans). | Required to verify whether the information provided is consistent with the certifier’s statement of compliance with January 21, 2020, energy conservation standards. |
| For ceiling fans, reporting requirement includes number of speeds and design requirement declaration. | Add reporting requirements for LDCF to 10 CFR 429.32(b)(2)(iii) to include CFEI for high speed and 40 percent speed or the nearest speed that is not less than 40 percent speed. | Required to verify whether the information provided is consistent with the certifier’s statement of compliance with January 21, 2020, energy conservation standards. |
| For ceiling fans, no rounding requirements for the small diameter or large diameter ceiling fan efficiencies. | Amend 10 CFR 429.32 to specify that represented values of efficiency must be rounded to the nearest whole number for small diameter ceiling fans in terms of CFM/W and to the nearest hundredth for LDCF in terms of CFEI. | Required to verify whether the information provided is consistent with the certifier’s statement of compliance with January 21, 2020, energy conservation standards. |
| For consumer boilers, non-weatherized oil-fired furnaces (including mobile home furnaces) and electric furnaces, no reporting requirement for standby mode and off mode energy consumption. | Add reporting requirement to 10 CFR 429.18(b)(2)(ii) for standby mode and off mode energy consumption of consumer boilers, non-weatherized oil-fired furnaces (including mobile home furnaces), and electric furnaces. | Required to verify whether the information provided is consistent with the certifier’s statement of compliance with May 1, 2013, energy conservation standards for non-weatherized oil-fired furnaces (including mobile home furnaces) and electric furnaces, and the January 15, 2021, energy conservation standards for consumer boilers. |
| For gas-fired boilers, reporting requirement to certify type of ignition system applies only to cast iron sectional gas-fired boilers. | Removal of reporting requirement for type of ignition and addition of reporting requirement to 10 CFR 429.18(b)(3)(ii) for declaration that the manufacturer has not incorporated a constant burning pilot to apply to all gas-fired boilers. | Required to verify whether the information provided is consistent with the certifier’s statement of compliance with September 1, 2012, energy conservation standards. |
| For hot water boilers, reporting requirement for declaration that the manufacturer has incorporated the applicable design requirements overlaps with new declaration that the manufacturer has not incorporated a constant burning pilot. | Removal of declaration that the manufacturer has incorporated the applicable design requirements and addition of reporting requirement to 10 CFR 429.18(b)(3)(iii) for whether the boiler is equipped with tankless domestic water heating coils (and if not, a declaration that the manufacturer has incorporated an automatic means for adjusting water temperature) to apply to all hot water boilers. | Required to verify whether the information provided is consistent with the certifier’s statement of compliance with September 1, 2012, energy conservation standards. |
| For grid-enabled water heaters, no requirement for manufacturers to submit annual shipment data. | Require manufacturers to submit annual shipment data for grid-enabled water heaters at 10 CFR 429.17(c). | Required by EPCA under 42 U.S.C. 6295(e)(6)(C)(i). |
| For testing dishwashers, no reporting requirement for certification based on testing with an alternate detergent in place of the one currently specified for use, which has been discontinued. | Require manufacturers to report use of the new detergent formulation that replaces the detergent formulation currently specified at 10 CFR 429.19(b)(3)(vi). | Required to ensure that any assessment or enforcement testing would be performed using the same detergent used by the manufacturer for certifying compliance with the energy conservation standards. |
| For CCWs, no requirement for reporting of clothes container capacity, loading axis, or remaining moisture content value. | Add reporting requirements to 10 CFR 429.46(b)(2)(iii)–(v) for clothing container capacity, type of loading (top-loading or front-loading), and remaining moisture content, including applicable rounding instructions for these reported values at 10 CFR 429.46(c). | Required to verify whether the information provided is consistent with the certifier’s statement of compliance with January 1, 2018, energy conservation standards and to conduct product-specific enforcement provisions. |
| For battery chargers, reporting requirements are included in 10 CFR 429.39, 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 DPPPs, includes certification reporting requirements for certain models that may cause confusion as to the scope of these provisions. | State explicitly in 10 CFR 429.59(b)(2)(iv) and 10 CFR 429.59(b)(3)(iv) that reporting requirements apply only to models subject to energy conservation standards. | Provide more explicit direction as to the applicability of current reporting requirements. |

DOE is not amending the test procedures or energy conservation standards for CFLKs, GSILs, IRLs, ceiling fans, consumer furnaces and boilers, consumer water heaters, dishwashers, CCWs, battery chargers, or DPPPs in this final rule.

The effective date for the amended certification requirements adopted in this final rule is 30 days after publication of this document in the **Federal Register**. Certification reports for CFLKs, GSILs, IRLs, ceiling fans, consumer furnaces and boilers, consumer water heaters, dishwashers, CCWs, battery chargers, and DPPPs submitted beginning 210 days after publication of this final rule must comply with the applicable certification requirements as amended by this final rule. For certification reports submitted

after the effective date of this final rule, but prior to the compliance date, a manufacturer may optionally submit a certification report as required by the amendments in this final rule (*i.e.,* early compliance is permitted). The requirements pertaining to the compliance date and the provision for early compliance apply to all certification reports submitted as required by 10 CFR 429.12 (*i.e.,* annual certifications and certification of new and discontinued basic models).

## III. Discussion

Certification of compliance to DOE is a mechanism that helps manufacturers understand their obligations for distributing models of covered products and equipment that are subject to energy conservation standards. 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 be in compliance with the applicable regulations.

As discussed in section I.B of this document, DOE proposed amendments to the certification and reporting requirements for certain products and equipment in the August 2021 Certification NOPR. 86 FR 43120, 43126–43127. DOE received a number of comments in response to the 2021 Certification NOPR, which are listed in section II, and are summarized in more detail in the following section. DOE also received comments regarding the proposals in the August 2021 Certification NOPR generally.

The Joint Commenters commented in favor of the proposed changes to the reporting requirements, agreeing with DOE's assessment that these updated requirements will ensure that certification reports reflect the information needed to determine compliance. The Joint Commenters also encouraged DOE to revise reporting requirements in a timely manner, noting that some of the proposed changes to requirements included in the August 2021 Certification NOPR were being proposed many years after the associated energy conservation standards went into effect. (Joint Commenters, No. 165, pp. 1–2)

Similarly, AHAM expressed support for the proposed reporting requirements, stating that the updated requirements would ensure consistency across product types. AHAM also commented that the updates would ensure consistency between testing to support certification and testing in support of DOE's enforcement efforts. (AHAM, No. 167, pp. 1–2)

AMCA commented generally that manufacturers should be allowed to report conservative ratings, which may be less than the calculated value determined using test data. (AMCA, No. 159, p. 2)

For the products and equipment addressed in this final rule, DOE has identified areas in which the current 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 amending the certification and reporting provisions for these products and equipment, as discussed in the following sections and generally as proposed in the August 2021 Certification NOPR, to ensure reporting that is consistent with currently applicable energy conservation standards and to ensure DOE has the information necessary to determine the appropriate classification of products for the application of standards. In addition to the specific amendments in the following sections, DOE is also adopting minor amendments to ensure consistency among terms used throughout DOE's certification and reporting provisions.

Regarding AMCA's comment that manufacturers should be allowed to report conservative ratings, in a prior rulemaking on certification, compliance, and enforcement, DOE explained that manufacturers may rate models conservatively, meaning the tested performance of the model(s) must be at least as good as the certified rating, after applying the appropriate product-specific sampling plan as set forth in 10 CFR part 429, subpart B. 76 FR 12422, 12429 (March 7, 2011). DOE clarified the use of conservative ratings within the discussion of the concept of ''basic model'' and noted that the sampling plans are designed to create conservative ratings, which ensures energy performance for consumers that is the same or better than the certified efficiency rating. *Id.* The amended certification and reporting provisions for the products and equipment in this final rule do not change a manufacturer's ability to rate conservatively.

### *A. Ceiling Fan Light Kits*

#### 1. Scope of Applicability

This final rule applies to CFLKs, which are products designed to provide light from a ceiling fan and can be either: (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 packaging at the time of sale or sold separately for subsequent attachment to the fan. 10 CFR 430.2; 42 U.S.C. 6291(50). In the December 2015 CFLK TP Final Rule, DOE revised its interpretation of the CFLK definition to state that the requirement for a CFLK to be ''designed to provide light'' includes all light sources in a CFLK, including accent lighting. 80 FR 80209, 80214.

#### 2. Reporting

Under the existing requirements in 10 CFR 429.33(b)(2), manufacturers must report: (1) system efficacy and rated wattage for CFLKs with medium screw base lamps; (2) system efficacy, rated wattage, and lamp length for CFLKs with pin-based fluorescent lamps; and (3) rated wattage and number of individual sockets for CFLKs with any other socket type. The existing reporting requirements also require a declaration that CFLKs with any other socket type (*i.e.,* not medium screw base or pin-based) meet the applicable design requirements. 10 CFR 429.33(b)(3). These requirements provide for certifying compliance with the January 1, 2007 standards.

In the August 2021 Certification NOPR, DOE noted that the reporting requirements at 10 CFR 429.33 continue to require manufacturers to report based on the January 1, 2007 standards, including information that is no longer relevant. 86 FR 43120, 43122. DOE added that this inconsistency between the reporting requirements and the January 21, 2020, standards may lead to confusion regarding which standards are applicable as well as the reporting of unnecessary information. *Id.* Therefore, DOE proposed in the August 2021 Certification NOPR to update the reporting requirements to address the January 21, 2020, standards and to remove the reporting requirements for the January 1, 2007 standard. *Id.* DOE sought comment on whether CFLKs manufactured prior to January 21, 2020, were still being distributed in commerce, and if the compliance requirements for these standards should be retained. *Id.* at 86 FR 43128.

ALA commented that it was aware of CFLKs manufactured prior to January 21, 2020, that are still being distributed in commerce and recommended that DOE retain the legacy compliance submission templates for these products. (ALA, No. 160, p. 2) Given that CFLKs manufactured prior to January 21, 2020, are still being

distributed in commerce, DOE is retaining the regulations for the certification requirements for CFLKs manufactured prior to January 21, 2020. As discussed, DOE is also adding separate reporting requirements applicable to CFLKs manufactured on or after January 21, 2020, that align with the January 21, 2020 standards. DOE discusses these updates in the sections that follow.

a. Efficacy

The January 21, 2020, standards require that all lamps and integrated SSL packaged with CFLKs meet certain efficacy standards based on the lumens of the lamp. 10 CFR 430.32(s)(6). To reflect the January 21, 2020 standards, DOE proposed in the August 2021 Certification NOPR to require manufacturers to identify, in a certification report, each basic model of lamp or integrated SSL circuitry packaged with the CFLK basic model and to provide the corresponding lumen output in lumens and the efficacy in lumens per watt (''lm/W'') for each lamp/SSL basic model. 86 FR 43120, 43128. The inclusion of basic model number, associated lumen output, and efficacy in the certification report would provide the necessary data to determine whether the basic model of the lamp in the CFLK complies with the January 21, 2020, standards requiring a minimum efficacy based on the lumens of the lamp. *Id.*

Additionally, the current test procedures and reporting requirements for various lighting products do not all use the same terms for lumen output and efficacy (*e.g.,* lumen output, average lumen output, initial lumen output, rated lumen output, efficacy, lamp efficacy, initial lamp efficacy, system efficacy). In the August 2021 Certification NOPR, DOE proposed to amend the reporting requirements to use the common terms ''lumen output'' and ''efficacy'' to identify the required values, and to make conforming revisions to the rounding requirements at 10 CFR 429.33(c). *Id.* DOE did not receive any comments on these proposals. For the reasons discussed in this final rule and in the August 2021 Certification NOPR, DOE is adopting these amendments as proposed in the August 2021 Certification NOPR.

b. Lumen Maintenance, Lifetime, and Rapid Cycle Stress Test

Both the January 1, 2007 standards and January 21, 2020 standards include, for medium screw base CFLs packaged with a CFLK, minimum requirements for lumen maintenance at 1,000 hours, lumen maintenance at 40 percent of lifetime, lifetime, and the number of units in the tested sample that must pass the rapid cycle stress test. 10 CFR 430.32(s)(3)(i) and (s)(6)(i). Currently, the reporting requirements do not reflect these requirements for CFLs packaged with CFLKs.

In the August 2021 Certification NOPR, DOE proposed to add reporting requirements for CFLKs packaged with a medium screw base CFL that would enable manufacturers to certify compliance with the January 21, 2020 standards. 86 FR 43120, 43128. Specifically, for CFLKs packaged with a medium screw base CFL, DOE proposed to require reporting of the following information for each basic model of CFL: lumen maintenance at 1,000 hours and lumen maintenance at 40 percent of lifetime in percentages; lifetime in hours; and the number of CFL units that pass rapid cycle stress testing. *Id.* Similar to DOE's reporting requirements for CFLs sold individually (*see* 10 CFR 429.35), DOE proposed allowing certification of lumen maintenance at 40 percent of lifetime, lifetime, and rapid cycle stress testing of a medium screw base CFL in a CFLK to be based on estimates when initially testing a new basic model, which would allow new basic models of CFLKs with medium screw based CFLs to be distributed in commerce prior to completion of lifetime testing, and DOE sought comment on this proposal. *Id.*

DOE did not receive any comments on reporting lumen maintenance at 1,000 hours and at 40 percent of lifetime, lifetime, and the rapid cycle stress test results for medium screw base CFLs in CFLKs. In addition, DOE did not receive any comments on allowing estimates for lumen maintenance at 40 percent of lifetime, lifetime, and the rapid cycle stress test result.

For the reasons discussed here and in the August 2021 Certification NOPR, in this final rule, DOE is adopting these requirements as proposed in the August 2021 Certification NOPR.

c. Design Requirement Declarations

The January 21, 2020, standards continue to require that CFLKs with pin-based sockets for fluorescent lamps use an electronic ballast. 10 CFR 430.32(s)(6)(ii). The current certification reporting requirements require for CFLKs with any socket type other than medium screw base or pin base a declaration that the basic model meets the applicable EPCA design requirement [13] and that the features that have been incorporated into the ceiling fan light kit meet the applicable design requirement (*e.g.,* circuit breaker, fuse, ballast). 10 CFR 429.33(b)(3). In the August 2021 Certification NOPR, DOE proposed to make this declaration more specific to existing requirements by requiring that, for a CFLK with a pin-based socket for a fluorescent lamp, the manufacturer provide in the certification report a declaration that that such a CFLK has an electronic ballast. 86 FR 43120, 43128. This proposal would allow manufacturers to specifically certify that basic models of CFLKs with pin-based socket fluorescent lamps comply with the requirement in the January 21, 2020, standard for such products to have an electronic ballast. 10 CFR 429.12(b).

The January 21, 2020, standards also continue to require that, for all lamp types, the CFLK be packaged with lamps to fill all of the sockets. 10 CFR 430.32(s)(6). In the August 2021 Certification NOPR, DOE proposed to require a declaration that the CFLK is packaged with lamps sufficient to fill all of the lamp sockets. 86 FR 43120, 43128. The declaration would provide DOE with data indicating whether the manufacturers have addressed the requirement in the January 21, 2020, standard that for all lamp types the CFLK is packaged with lamps to fill all of the sockets. *Id.*

DOE did not receive any comments on requiring a declaration that pin-based fluorescent lamps in CFLKs have an electronic ballast. In addition, DOE did not receive any comments on requiring a declaration that the CFLK are packaged with lamps sufficient to fill all sockets.

In the August 2021 Certification NOPR, DOE proposed that these two declarations would be included in the certification report as public information. 86 FR 43120, 43128. Public information is made available to consumers in DOE's Compliance Certification Database (''CCD'') [14] available at *www.regulations.doe.gov/certification-data.* DOE notes that in the case of these two declarations, every valid certification must include a positive declaration (*i.e.,* ''Yes''); as such, the statement of declaration is not a characteristic that would provide any differentiation among products listed in the CCD (*i.e.,* every product in the public database would be designated as ''Yes''). DOE also notes that the existing similar declaration requirement

[13] CFLKs that meet the January 21, 2020, efficacy standards are presumed to meet the EPCA-mandated 190 W limit requirement. *See* 42 U.S.C. 6295(ff)(4)(C) and 10 CFR 430.32(s)(5).

[14] As described on the CCD website, the CCD offers consumers an easy-to-use search function for existing records in a readily downloadable format. There is also a consumer-friendly selection tool as well as a search-by-model function.

applicable to CFLKs with any other socket type manufactured prior to January 1, 2020, is designated as non-public as codified at 10 CFR 429.33(b)(3). In an effort to promote the simplification and usability of the CCD for consumers and other interested parties by including relevant information that can be used to differentiate among products within the database, DOE is designating these two new declaration requirements, applicable to products manufactured on or after January 1, 2020, as non-public (*i.e.,* they would not be listed in the CCD) and codifying them at 10 CFR 429.33(b)(3)(ii)(A) and (C), respectively.

d. Basic Model, Lamp Type, and Sample Size Requirements

In the August 2021 Certification NOPR, DOE also proposed certain certification reporting requirements for CFLKs to provide further specificity as to what is required to be reported. 86 FR 43120, 43129. Specifically, DOE proposed adding language in 10 CFR 429.33(b) stating that manufacturers must provide the brand, basic model number, and other additional lamp-specific information for each basic model of lamp included in the basic model of CFLK under test. *Id.* This proposal would allow DOE to use the appropriate certification values to verify whether the information provided is consistent with the certifier's statement of compliance with January 21, 2020 standards. If the same basic model of lamp is used in multiple CFLK basic models, manufacturers may use the same set of test data for that basic model of lamp to show compliance for each CFLK basic model in which it is included. *Id.*

In the August 2021 Certification NOPR, DOE also proposed requiring that manufacturers provide the test sample size and kind of lamp for each basic model of a lamp and/or each basic model of integrated SSL circuitry packaged with a basic model of CFLK. 86 FR 43120, 43129. Because pin-based socket fluorescent lamps and medium-based socket CFLs in CFLKs are lamp types subject to additional standards, the lamp type of the basic model of lamp in the CFLK is necessary to determine the product class applicable to the basic model of CFLK. *Id.*

Additionally, DOE proposed requiring that manufacturers provide, if applicable, a declaration that each basic model of lamp packaged with the basic model of CFLK was tested by a laboratory accredited as required under 10 CFR 430.25.[15] 86 FR 43120, 43129. Lamps specified in 10 CFR 430.25 must be tested by laboratories with these accreditation requirements, and this declaration will allow DOE to verify whether the information provided is consistent with the certifier's statement of compliance with this requirement. In the August 2021 Certification NOPR, DOE inadvertently proposed in the CFR text that this declaration would be included under 10 CFR 429.33(b)(2)(ii)(B), which would make it a public certification requirement. For consistency with other reporting requirements that require only a ''yes'' or ''no'' response, DOE is moving this declaration to 10 CFR 429.33(b)(3)(ii)(B) in this rulemaking and clarifying that it is a non-public reporting requirement.

DOE received comments from both TIC and ALA regarding the proposed declaration that lamps packaged with CFLKs were tested by an accredited laboratory as required under 10 CFR 430.25. TIC proposed re-wording the description of the proposed requirement to state that ''lamps packaged with CFLKs were tested by a laboratory accredited by an accreditation body that is a signatory to the International Laboratory Accreditation Cooperation (''ILAC'') Mutual Recognition Arrangement (''MRA'') as required under 10 CFR 430.25.'' (TIC, No. 161, p. 1) DOE notes that the wording recommended by TIC is consistent with the regulatory language of 10 CFR 430.25, and therefore that DOE's proposal to reference ''a laboratory accredited as required under § 430.25'' is consistent with TIC's recommendation.

ALA expressed support for DOE's efforts to harmonize efficiency reporting data to reflect the current standards for CFLKs, but also requested that DOE affirm that the requirements identified in 10 CFR 430.25 allow for manufacturers to conduct their own testing, and that reporting from accredited manufacturer-owned labs will be allowed. (ALA, No. 160, p. 2) DOE notes that 10 CFR 430.25 specifically provides that ''A manufacturer's or importer's own laboratory, if accredited, may conduct the applicable testing.'' DOE finds this existing language sufficiently explicit on the matter of ALA's request and, therefore, is not revising 10 CFR 430.25 as part of this final rule.

e. Rounding Requirements

In the August 2021 Certification NOPR, DOE proposed rounding requirements for the certification reporting requirements proposed in the same document. 86 FR 43120, 43129. DOE proposed that lumen output be rounded to three significant digits; lumen maintenance at 1,000 hours and at 40 percent of lifetime be rounded to the nearest tenth of a percent; and lifetime be rounded to the nearest whole hour. *Id.* Currently, DOE specifies that any represented value of initial lamp efficacy, system efficacy, or luminaire efficacy be rounded to the nearest tenth. DOE proposed simplifying these requirements to state any represented value of efficacy be rounded to the nearest tenth. *Id.*

DOE did not receive any comments in response to the proposed rounding requirements and is adopting them as proposed in the August 2021 Certification NOPR.

3. Reporting Costs and Impacts

As discussed, in the August 2021 Certification NOPR, DOE proposed aligning CFLK certification reporting requirements with the energy conservation standard requirements applicable to CFLKs manufactured on and after January 21, 2020. 86 FR 43120, 43129.

For CFLKs with sockets for medium screw base lamps, manufacturers currently report two values (*i.e.,* efficacy and wattage), but would report four to nine values (*e.g.,* efficacy, lumen output, test sample size, kind of lamp, a declaration of ILAC accreditation, lumen maintenance at 40 percent of lifetime, lumen maintenance at 1,000 hours, lifetime, units passing rapid cycle stress test), depending on the kind of lamps packaged with the CFLK, under the reporting requirements proposed in the August 2021 Certification NOPR. 86 FR 43120, 43129. For CFLKs with pin-based sockets for fluorescent lamps, manufacturers currently report three values (*i.e.,* efficacy, wattage, length of lamp) but would report five values (*i.e.,* efficacy, lumen output, test sample size, kind of lamp, and a declaration of ILAC accreditation), under the proposed reporting requirements. *Id.* For CFLKs with lamps of other socket types, manufacturers currently report two values (*i.e.,* wattage, number of individual sockets), but would report five values (*i.e.,* efficacy, lumen output, test sample size, kind of lamp, and a

[15] 10 CFR 430.25 states that the testing for GSFLs, GSILs (with the exception of lifetime testing), GSLs (with the exception of applicable lifetime testing), IRLs, CFLs, and fluorescent lamp ballasts, and integrated LED lamps must be conducted by test laboratories accredited by an Accreditation Body that is a signatory member to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA). A manufacturer's or importer's own laboratory, if accredited, may conduct the applicable testing.

declaration of ILAC accreditation), under the proposed reporting requirements. *Id.*

In the August 2021 Certification NOPR, DOE tentatively determined that these 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 proposed to collect. *Id.* DOE stated that it did not believe the revised reporting requirements would cause any measurable change in reporting burden or hours as compared to what CFLK manufacturers are currently doing today, but DOE requested comment on the certification reporting costs. *Id.*

ALA stated that complying with the proposed reporting obligations would require a significant effort by industry to modernize the certification process. ALA added, however, that adopting these revised reporting requirements would not be overly burdensome for manufacturers. (ALA, No. 160, p. 1) DOE did not receive any other comments regarding the certification reporting costs of the proposed CFLK amendments, and ALA did not provide any data indicating increased costs to manufacturers related to reporting. Further, ALA did not provide any data or more specific information about how the additional required certification data would require a significant effort to modernize the certification process. The reporting of the additional values would be accomplished using the existing on-line data templates in DOE's Compliance and Certification Management System (''CCMS''). Further, the additional values are measurements and calculations required under the current DOE test procedure, and therefore should be available to the manufacturers. Based on the preceding discussion and the discussion in the August 2021 Certification NOPR, DOE makes a final determination that these amendments would not cause any measurable change in reporting burden or hours as compared to what CFLK manufacturers are currently doing today.

*B. GSILs and IRLs*

1. Scope of Applicability

This final rule applies to GSILs and IRLs. DOE defines GSILs as a standard incandescent or halogen type lamp intended for general service applications; has a medium screw base; has a lumen range between 310–2600 lumens or, in the case of a modified spectrum lamp, between 232–1,950 lumens; and is capable of being operated at a voltage range at least partially within 110–130 volts. 10 CFR 430.2. The GSIL definition does not include certain lamp types (see 10 CFR 430.2). DOE defines IRLs as any lamp in which light is produced by a filament heated to incandescence by an electric current; contains an inner reflective coating on the outer bulb to direct the light; is not colored; is not designed for rough or vibration service applications; is not an R20 short lamp; has an R, PAR, ER, BR, BPAR,[16] or similar bulb shapes with an E26 medium screw base; has a rated voltage or voltage range that lies at least partially in the range of 115–130 volts; has a diameter that exceeds 2.25 inches; and has a rated wattage that is 40 watts or higher. 10 CFR 430.2.

2. Reporting

Under the existing requirements in 10 CFR 429.27(b)(2)(ii) for IRLs, manufacturers must report: (1) the testing laboratory's ILAC accreditation body's identification number or other approved identification assigned by the ILAC accreditation body; (2) production dates of the units tested; (3) the 12-month average lamp efficacy in lumens per watt (lm/W); and (4) lamp wattage (W).

For IRLs (as well as GSFLs), DOE also specifies at 10 CFR 429.12(e)(2) that prior to or concurrent with the distribution of a new basic model, each manufacturer shall submit an initial certification report listing the basic model number, lamp wattage, and date of first manufacture (*i.e.,* production date) for that basic model. The certification report must also state how the manufacturer determined that the lamp meets or exceeds the energy conservation standards, including a description of any testing or analysis the manufacturer performed. Manufacturers of GSFLs and IRLs shall submit the certification report required by 10 CFR 429.27(b) within one year after the first date of new model manufacture.

In the June 2021 Lighting TP NOPR, DOE proposed to include a test method for determining CRI of IRLs. 86 FR 29888, 29902. To verify whether the information provided is consistent with the certifier's statement of compliance with standards, DOE proposed in the August 2021 Certification NOPR to require the reporting of CRI for IRLs. 86 FR 43120, 43129. Additionally, for IRLs, DOE proposed to require the reporting of rated voltage and lamp diameter. *Id.* Because rated voltage and lamp diameter are used to determine the applicable energy conservation standards for IRLs, collecting this information would help DOE evaluate whether a basic model meets the appropriate energy conservation standard requirements (*see* 10 CFR 430.32(n)(6)).

In the June 2021 Lighting TP NOPR, DOE also proposed to remove the current requirement at 10 CFR 429.27(a)(2)(i), applicable to IRLs, that the sampling plan must include a minimum of three lamps selected from each month of production for a minimum of 7 out of a 12-month period. 86 FR 29888, 29905. Additionally, DOE proposed to remove the requirement in 10 CFR 429.12(e)(2) to submit an initial certification report prior to or concurrent with the distribution of a new basic model for IRLs (as well as GSFLs). *Id.* Hence, in the August 2021 Certification NOPR, DOE did not propose any changes to the requirements for the initial certification report for IRLs. DOE proposed adding rated voltage, lamp diameter and CRI for IRLs only for annual filing certification reporting. 86 FR 43120, 43129.

In its comments on the August 2021 Certification NOPR, NEMA opposed the adoption of the proposed requirement to report CRI for IRLs, asserting that it is inconsistent with EISA 2007, which prescribes CRI reporting requirements for GSLs but not IRLs. (NEMA, No. 164, p. 1) NEMA otherwise expressed general support for the GSIL and IRL reporting requirements proposed in the August 2021 Certification NOPR. *Id.*

DOE disagrees with NEMA's assertion that IRLs are not subject to a CRI requirement. EISA 2007 established a CRI requirement for IRLs. Specifically, section 321(a)(3)(A)(ii) of EISA 2007 established CRI requirements for lamps that are intended for general service or general illumination application (whether incandescent or not); have a medium screw base or any other screw base not defined in ANSI C81.61–2006; are capable of operating at a voltage at least partially within the range of 110 to 130 volts; and are manufactured or imported after December 31, 2011. As previously discussed, the recently published May 2022 Definition Final Rule expanded the definition of GSL to include IRLs because DOE concluded that IRLs are used in general lighting applications. 82 FR 27461, 27467, 27481. Because IRLs are intended for general service application, have a medium screw base, and a voltage between 110 to 130 volts, they meet the criteria of section 321(a)(3)(A)(ii) of EISA 2007 and are subject to the CRI requirement.

[16] Reflector (''R''), parabolic aluminized reflector (''PAR''), elliptical reflector (''ER''), bulged reflector (''BR''), bulged parabolic aluminized reflector (''BPAR'').

DOE did not receive any other comments on requiring the reporting of CRI to certify compliance with the existing energy conservation standards for IRLs, nor did DOE receive any comments on requiring the reporting of lamp diameter and rated voltage to help determine the applicable energy conservation standard for IRLs.

For the reasons discussed here and in the August 2021 Certification NOPR, in this final rule, DOE is adopting the reporting requirements for IRLs as proposed in the August 2021 Certification NOPR. As described, these reporting requirements apply only to annual filing certification reporting. If the amendment proposed in the June 2021 Lighting TP NOPR to remove the requirement for IRLs to submit an initial certification report is not adopted, DOE will consider adding these additional reporting requirements to the initial certification reporting requirements in a future separate rulemaking.

Under the existing requirements in 10 CFR 429.27(b)(2)(iii) for GSILs, manufacturers must report: (1) the testing laboratory's ILAC accreditation body's identification number or other approved identification assigned by the ILAC accreditation body; (2) production dates of the units tested; (3) the 12-month average maximum rate wattage in watts (''W''); (4) the 12-month average minimum rated lifetime (hours); and (5) the 12-month average CRI.

In the August 2021 Certification NOPR, DOE proposed to require the reporting of initial lumen output for GSILs because this value is needed to evaluate whether a basic model meets the appropriate energy conservation standard requirements (*see* 10 CFR 430.32(x)).[17] 86 FR 43120, 43130. DOE did not receive any comments on requiring the reporting of initial lumen output for GSILs. For the reasons discussed here and in the August 2021 Certification NOPR, in this final rule, DOE is adopting this amendment to the reporting requirements for GSILs as proposed in the August 2021 Certification NOPR.

3. Reporting Costs and Impacts

As discussed, in the August 2021 Certification NOPR, DOE proposed to align IRL certification reporting requirements with the existing energy conservation standard requirements. 86 FR 43120, 43128. Additionally, DOE proposed to include reporting requirements for GSILs and IRLs that will help DOE determine applicable energy conservation standards for these products. *Id.*

For IRLs, manufacturers currently certify four values (*i.e.,* ILAC accreditation, production dates, lamp efficacy, and lamp wattage), and would report three additional values (*i.e.,* CRI, lamp diameter, rated voltage) under the requirements proposed in the August 2021 Certification NOPR. 86 FR 43120, 43130. GSIL manufacturers currently report five values (*i.e.,* ILAC accreditation, production dates, wattage, lifetime, and CRI), and would report one additional value under the proposed reporting requirements (*i.e.,* lumens). *Id.* DOE notes that, in the June 2021 Lighting TP NOPR, it proposed to remove the reporting of production dates for IRLs and GSILs. 86 FR 29888, 29905.

In the August 2021 Certification NOPR, DOE tentatively determined that these amendments would not impose additional costs for manufacturers because manufacturers of IRLs and GSILs are already submitting certification reports to DOE. 86 FR 43120, 43130. Manufacturers should have readily available the information that DOE proposed to require as part of this rulemaking because such information is necessary to determine applicable energy conservation standards or to meet existing statutory requirements. DOE stated in the August 2021 Certification NOPR that it did not believe that the revised reporting requirements would cause any measurable change in reporting burden or hours as compared to what manufacturers of IRLs and GSILs are currently doing today. *Id.*

NEMA commented that there are several DOE proceedings that may apply to or otherwise impact GSILs and IRLs. NEMA urged DOE to align the requirements and implementation dates for these proceedings to minimize unnecessary burden on those directly impacted by these regulations. (NEMA, No. 164, p. 2)

For the reasons discussed in the prior paragraphs and in the August 2021 Certification NOPR, in this final rule, DOE is adopting the reporting requirements for GSILs and IRLs as proposed. Compliance with these amended reporting requirements is not required until 210 days after publication of this final rule. The reporting of the additional values will be through the existing on-line CCMS process using data templates maintained by DOE, and the additional values reflect an existing requirement (*i.e.,* CRI values required under section 321(a) of EISA 2007) and are measurements and calculations required under the current DOE standard and/or test procedure for GSILs and IRLs. Specifically, determining which standard an IRL is subject to requires lamp diameter and the IRL standard and test procedure requires measurement of rated wattage. Determining which standard a GSIL is subject to requires lumens and the measurement of the metric is also specified in the test procedure. Therefore, the values should be available to manufacturers. Based on the preceding discussion and the discussion in the August 2021 Certification NOPR, DOE makes a final determination that these amendments would not cause any measurable change in reporting burden or hours for GSIL and IRL manufacturers.

*C. Ceiling Fans*

1. Scope of Applicability

EPCA defines ''ceiling fan'' as ''a nonportable device that is suspended from a ceiling for circulating air via the rotation of fan blades.'' (42 U.S.C. 6291(49)) DOE codified the statutory definition in 10 CFR 430.2. In the July 2016 Ceiling Fan TP Final Rule, DOE stated that the test procedure applies to any product meeting this definition, including fans designed for applications where large airflow volume may be needed and highly decorative fans. 81 FR 48620, 48622. DOE stated, however, that the ceiling fan test procedure does not apply to the following fans: belt-driven ceiling fans, centrifugal ceiling fans, oscillating ceiling fans, and ceiling fans whose blades' plane of rotation cannot be within 45 degrees of horizontal. *Id.*

Relevant to this final rule, DOE defines ''small-diameter ceiling fan'' in section 1.17 of appendix U as a ceiling fan that is less than or equal to seven feet in diameter. DOE defines a ''large-diameter ceiling fan'' in section 1.11 of appendix U as a ceiling fan that is greater than seven feet in diameter.

2. Reporting

The current requirements for certification reports for ceiling fans correspond to the design requirements specified in EPCA. (*See* 42 U.S.C. 6295(ff)(1)) These reporting requirements are set forth at 10 CFR 429.32(b) and require reporting of the number of speeds within the ceiling fan controls and a declaration that the manufacturer has incorporated the applicable design requirements. The current certification requirements do not reflect the amended energy conservation standards adopted in the January 2017 Ceiling Fan ECS final rule or the amended standards for LDCFs

[17] For GSILs, the applicable standards depend on the rated lumen output of the basic model.

adopted by Congress in the Energy Act of 2020. *See* 82 FR 6826; 42 U.S.C. 6295(ff)(6)(C)(i), as codified; 86 FR 28469.

In the August 2021 Certification NOPR, DOE proposed maintaining the required declaration that the manufacturer has incorporated the applicable design requirements as a public reporting requirement codified at 10 CFR 429.32(b)(2). 86 FR 43120, 43131. Similar to the declarations applicable to CFLKs discussed in section III.A.2.c of this document, DOE notes that in the case of this declaration for ceiling fans, every valid certification must include a positive declaration (*i.e.,* ''Yes''). As such, the statement of declaration is not a characteristic that provides any differentiation among products listed in the CCD (*i.e.,* every product in the public database would be designated as ''Yes''). In an effort to promote the simplification and usability of the CCD for consumers and other interested parties by including relevant information that can be used to differentiate among products within the database, DOE is designating this declaration requirement as non-public (*i.e.,* it would not be listed in the CCD) and codifying it at 10 CFR 429.32(b)(3) accordingly in this final rule.

a. Small-Diameter Ceiling Fan Requirements

In the September 2019 Ceiling Fan TP NOPR, DOE proposed to update the reporting requirements for ceiling fans to include product-specific information that would be required to certify compliance with the amended energy conservation standards established in January 2017 Ceiling Fan ECS Final Rule. 84 FR 51440, 51450. DOE did not finalize the proposed requirements from the September 2019 Ceiling Fan TP NOPR and revisited the certification and rounding requirements with a new proposal in the August 2021 Certification NOPR. 86 FR 43120, 43130–43131.

Product-specific information is necessary to determine the product class and minimum allowable ceiling fan efficiency required to certify compliance with current energy conservation standards. For small-diameter ceiling fans, the product class (*i.e.,* very small-diameter, standard, hugger, or high-speed small-diameter) is determined using blade span (in), blade edge thickness (in), airflow (CFM) at high speed, blade revolutions per minute (''RPM'') at high speed, and the represented distance (in) between the ceiling and the lowest point on the fan blades. Further, identification of whether a small-diameter ceiling fan is a multi-head ceiling fan is necessary to determine applicable standards. Specifically, a multi-head ceiling fans requires calculating ceiling fan efficiency differently than other small-diameter ceiling fans by including the airflow and power consumption of all fan heads (*see* section 4.1.1 of appendix U).

Accordingly, DOE proposed in the August 2021 Certification NOPR to require that certification reports include the following public product-specific information for each ceiling fan basic model: (1) blade span in inches; (2) ceiling fan efficiency in CFM/W; and (3) a declaration of whether the fan is a multi-head ceiling fan. 86 FR 43120, 43130.

For each ceiling fan basic model, DOE also proposed to require additional product-specific information, including: (1) blade edge thickness (in), airflow (CFM) at high speed, and blade RPM at high speed; and (2) for low-speed small-diameter (''LSSD'') ceiling fans, the distance (in) between the ceiling and the lowest point on the fan blades. *Id.* Manufacturers are already required to determine these values as part of the current test procedure for ceiling fans and would be required to use these values to determine which amended energy conservation standards apply to their basic models. *Id.* at 86 FR 43130–43131.

Further, DOE proposed in the August 2021 Certification NOPR to require reporting of standby power consumption (in watts) for small-diameter ceiling fans. *Id.* at 86 FR 43131. DOE notes that standby power consumption is already required to be measured in section 3.6 of appendix U and is an input into the calculation of ceiling fan efficiency in section 4 of appendix U. Therefore, DOE tentatively determined that the reporting of standby power for these ceiling fans would not result in an increase in reporting burden for manufacturers. *Id.*

ALA generally supported DOE's efforts to harmonize efficiency reporting data to reflect the current standards as it would provide much needed clarity. (ALA, No. 160, p. 1) DOE received no other comments in response to its proposed amendments to the requirements for small-diameter ceiling fans. For the reasons discussed here, and in the August 2021 Certification NOPR, in this final rule, DOE is adopting these amendments as proposed in the August 2021 Certification NOPR.

b. Large-Diameter Ceiling Fan Requirements

As discussed, the distinction between small-diameter and large-diameter ceiling fans is based on blade span. The Energy Act of 2020 required that LDCFs must meet two separate standards based on the CFEI metric, with one standard based on operation of the fan at high speed and a second standard based on operation of the fan at 40 percent speed or the nearest speed that is not less than 40 percent speed. (*See* 42 U.S.C. 6295(ff)(6)(C)(i)(II), as codified) Accordingly, DOE proposed in the August 2021 Certification NOPR to amend the reporting requirements for LDCFs to require reporting blade span in inches, CFEI for high speed, and CFEI for 40 percent speed or the nearest speed that is not less than 40 percent speed. 86 FR 43120, 43131.

In response to the August 2021 Certification NOPR, AMCA supported the proposed reporting requirements for large-diameter fans. AMCA also proposed that two additional reporting requirements be added—airflow (CFM) at high speed and airflow (CFM) at 40 percent speed or the nearest speed that is not less than 40 percent speed. (AMCA, No. 159, p. 2) AMCA stated that requiring manufacturers to document CFEI and any two of the three parameters will help prevent cheating because with any three values (CFEI and two others), the fourth value can be calculated with certainty. Further, AMCA noted that adding the two additional values to DOE's proposed filing requirements would not impose an additional burden on manufacturers because they are taken from the test laboratory report. *Id.* DOE did not receive any other comments in response to the proposed LDCF requirements.

Although airflow in CFM is measured by the test procedure and is required for calculating CFEI (*i.e.,* the metric on which the energy efficiency standards for LDCFs are based), the airflow values themselves are not required to determine compliance with standards. Therefore, DOE is not including them in these finalized reporting requirements.

In this final rule, for the reasons discussed in the preceding paragraphs and the August 2021 Certification NOPR, DOE is adopting the revised reporting requirements for LDCFs as proposed in the August 2021 Certification NOPR.

c. Rounding Requirements

In the August 2021 Certification NOPR, DOE proposed amendments to 10 CFR 429.32 to specify that represented values are to be determined consistent with the test procedures in appendix U and to specify rounding requirements for represented values. 86 FR 43120, 43131. DOE proposed that manufacturers round any represented

value of ceiling fan efficiency for small diameter ceiling fans, expressed in CFM/W, to the nearest whole number. *Id.* Additionally, for LDCF, DOE proposed to specify that any represented value of CFEI must be rounded to the nearest hundredth. *Id.*

ALA commented in support of the small-diameter ceiling fan rounding requirements as proposed in the August 2021 Certification NOPR, and stated that the proposed requirements would align with the Federal Trade Commission's labeling rounding requirements. (ALA, No. 160, p. 1–2) AMCA expressed support for the proposed rounding of CFEI values to the nearest hundredth. (AMCA, No. 159, p. 2)

In this final rule, for the reasons discussed in the preceding paragraphs and the August 2021 Certification NOPR, DOE is adopting the rounding requirements as proposed in the August 2021 Certification NOPR.

3. Reporting Costs and Impacts

As discussed, in the August 2021 Certification NOPR, DOE proposed to align ceiling fan certification reporting requirements with the energy conservation standard requirements applicable to ceiling fans manufactured on and after January 21, 2020, and with the May 2021 Technical Amendment. 86 FR 43120, 43131.

For all ceiling fans, manufacturers currently report two fields (*i.e.,* the number of speeds within the ceiling fan controls and a declaration that the manufacturer has incorporated the applicable design requirements). 10 CFR 429.32(b)(2). The proposed requirements would add a variable number of additional reporting fields, depending on the product class. For small-diameter ceiling fans, manufacturers would be required to report five to eight additional fields (*i.e.,* blade span, CFM/W, standby power, a declaration whether the fan is a multi-head ceiling fan, blade edge thickness, CFM and RPM at high speed, and the represented distance between the ceiling and the lowest point on the fan blades). For LDCF, manufacturers would be required to report three additional fields (*i.e.,* blade span, CFEI for high speed and 40 percent speed or the nearest speed that is not less than 40 percent speed). 86 FR 43120, 43131.

In the August 2021 Certification NOPR, DOE tentatively determined that these amendments would not impose additional costs for manufacturers because manufacturers of ceiling fans are already submitting certification reports to DOE and should have readily available the information that DOE proposed to collect. *Id.* Any added fields would be reflective of the product-specific information needed to verify whether the information provided is consistent with the certifier's statement of compliance with the energy conservation standard requirements applicable to ceiling fans manufactured on and after January 21, 2020, as established in the January 2017 Ceiling Fan ECS Final Rule and the Energy Act of 2020. DOE stated in the August 2021 Certification NOPR that it did not believe that the revised reporting requirements would cause any measurable change in reporting burden or hours as compared to the current requirements for ceiling fan manufacturers. *Id.*

ALA generally commented that while manufacturers spend considerable time preparing for and certifying their products, adjusting to the additional information requested in the proposal should not be overly burdensome for manufacturers. (ALA, No. 160 at p. 1) Otherwise, DOE did not receive any comments on the certification and reporting costs of the amended reporting requirements for ceiling fans. Based on the preceding discussion and the discussion in the August 2021 Certification NOPR, DOE makes a final determination that these amendments would not cause any measurable change in reporting burden or hours for ceiling fan manufacturers.

*D. Consumer Furnaces and Boilers*

1. Scope of Applicability

EPCA defines the term ''furnace'' to mean a product which utilizes only single-phase electric current, or single-phase electric current or direct current (DC current) in conjunction with natural gas, propane, or home heating oil, and which: (1) is designed to be the principal heating source for the living space of a residence; (2) is not contained within the same cabinet with a central air conditioner whose rated cooling capacity is above 65,000 British thermal units per hour (Btu/h); (3) is an electric central furnace, electric boiler, forced-air central furnace, gravity central furnace, or low pressure steam or hot water boiler; and (4) has a heat input rate of less than 300,000 Btu/h for electric boilers and low pressure steam or hot water boilers and less than 225,000 Btu/h for forced-air central furnaces, gravity central furnaces, and electric central furnaces. (42 U.S.C. 6291(23)) DOE has codified this definition at 10 CFR 430.2, where it also defines ''electric central furnace,'' ''electric boiler,'' ''forced-air central furnace,'' ''gravity central furnace,'' and ''low pressure steam or hot water boiler''.

The changes discussed in this section apply to non-weatherized oil-fired furnaces, electric furnaces, and consumer boilers meeting the definitions in 10 CFR 430.2, as presented in the preceding paragraph.

2. Reporting

Under the existing requirements in 10 CFR 429.18(b), consumer (residential) furnace and boiler manufacturers must report the AFUE in percent and the input capacity in British thermal units per hour (''Btu/h'') in their certification reports. In addition, for cast-iron sectional boilers, manufacturers must include the type of ignition system for gas-fired steam and hot water boilers and a declaration of whether certification is based on linear interpolation or testing. For hot water boilers, manufacturers must also include a declaration that the manufacturer has incorporated the applicable design requirements. For multi-position furnaces, the AFUE reported for each basic model must be based on testing in the least-efficient configuration, but manufacturers may also optionally report and make representations of additional AFUE values based on testing in other configurations. 10 CFR 429.18(b).

In the August 2021 Certification NOPR, DOE proposed to modify some of the reporting requirements and add new requirements to better align with the existing standards and aid in determining which energy conservation standards apply to a given basic model for non-weatherized oil-fired consumer furnaces (including mobile home furnaces), electric consumer furnaces, and consumer boilers. 86 FR 43120, 43131. The specific changes are discussed in more detail in the following sections.

a. Standby Mode and Off Mode Energy Consumption

In addition to the applicable AFUE standards, DOE prescribes separate standards for standby mode and off mode power consumption (designated as $P_{W,SB}$ and $P_{W,OFF}$, respectively) for non-weatherized oil-fired furnaces in watts (including mobile home furnaces), electric furnaces, and consumer boilers. 10 CFR 430.32(e)(1)(iii) and (e)(2)(iii)(B). However, the reporting requirements for consumer furnaces and boilers at 10 CFR 429.18 do not include a requirement to certify the standby mode and off mode power consumption of non-weatherized oil-fired furnaces (including mobile home furnaces), electric furnaces, or consumer boilers.

Therefore, DOE proposed to require that manufacturers report values for $P_{W,SB}$ and $P_{W,OFF}$ for non-weatherized oil-fired furnaces (including mobile home furnaces), electric furnaces, and consumer boilers. 86 FR 43120, 43132.

Additionally, manufacturers of consumer furnaces and consumer boilers may use identical controls and electrical components across various models and/or product lines with different characteristics (*e.g.,* input capacity) and across AFUE levels. These differences in characteristics may prevent these basic models from being grouped as a single basic model, but because the different basic models have identical controls and electrical components affecting standby mode and off mode energy consumption, the standby mode or off mode test result would be expected to be the same for both models. Therefore, DOE proposed that if all electrical components that would impact the standby mode and off mode energy consumption are identical between multiple basic models, manufacturers can optionally test only one of the basic models and use test data from that basic model to rate the standby mode and off mode energy consumption for other basic models having identical controls and electrical components affecting standby mode and off mode energy consumption. 86 FR 43120, 43132.

Bradford White expressed support for the proposed standby mode and off mode reporting requirements for consumer furnaces and boilers. (Bradford White, No. 163, p. 1)

AHRI also supported the proposed standby mode and off mode energy consumption reporting requirements for furnaces. (AHRI, No. 166, p. 2) For boilers, however, AHRI asserted that there is no reason that compliance of standby mode and off mode power would require more than simply a declaration of compliance. AHRI stated that these modes consume very little power relative to the power consumed by the boiler as a whole, and that they are not given much consideration or weight by consumers. (*Id.*) AHRI also requested that DOE consider removing standby mode and off mode power consumption from the energy conservation standards for boilers. AHRI stated that indoor appliances do not have jacket losses measured because all heat lost to the envelope is still considered useful heat, and that any losses through standby mode and off mode should be considered only as useful heat for any indoor boiler. (*Id.*) AHRI asserted that reducing the standby mode and off mode energy conservation standards would only have adverse effects on the consumer and would result in major impacts to value added displays and safety controls. (*Id.*)

DOE notes that regardless of whether consumers consider standby mode and off mode power, these values are necessary for DOE to determine whether certified models comply with the standby mode and off mode standards for these products specified at 10 CFR 430.32(e)(1)(iii) and (e)(2)(iii)(B). Furthermore, requiring the values themselves rather than a statement of compliance is consistent with the approach used by DOE for other covered product types, and such information should be readily available, as it was needed to determination compliance with the applicable standard.

Accordingly, for the reasons discussed here and in the August 2021 Certification NOPR, in this final rule, DOE is adopting reporting requirements for standby mode and off mode power consumption for boilers and furnaces as proposed in the August 2021 Certification NOPR.

Regarding AHRI's comments in relation to the standby mode and off mode power consumption standards, consideration of any changes to energy conservation standards is outside of the scope of this rulemaking. However, the Department nonetheless points out that under 42 U.S.C. 6295(gg), EPCA mandates that DOE account for standby mode and off mode energy consumption for any final rule for energy conservation standards promulgated after July 1, 2010, so removal of those standards is not possible.

b. Type of Ignition System for Gas-Fired Consumer Boilers

The energy conservation standards for consumer boilers prohibit the use of constant-burning pilots for gas-fired hot water boilers and gas-fired steam boilers. 10 CFR 430.32(e)(2)(iii). Currently, manufacturers are required to certify the type of ignition system only for cast iron sectional gas-fired hot water and steam boilers. 10 CFR 429.18(b)(2)(ii). ''Cast iron sectional'' refers to the construction of the boiler heat exchanger, which is composed of cast iron sections. The prohibition of constant-burning pilot ignition systems is not limited to only consumer boilers with cast iron sectional heat exchangers, but rather is applicable to all gas-fired hot water boilers and gas-fired steam boilers, including those with heat exchangers made from other materials (*e.g.,* copper, aluminum, stainless steel). Therefore, DOE proposed in the August 2021 Certification NOPR to modify the reporting requirement for the type of ignition system such that the type of ignition system must be certified for all gas-fired hot water boilers and gas-fired steam boilers. 86 FR 43120, 43132. This change would allow DOE to confirm that the manufacturer-reported type of ignition system for a given basic model meets the design requirement for all types of gas-fired hot water boilers and gas-fired steam boilers.

In addition, 10 CFR 429.18(b)(3) requires that for hot water boilers, the manufacturer include in its certification report a declaration that the manufacturer has incorporated the applicable design requirements. As discussed, the standards for gas-fired steam boilers also include a design requirement that use of a constant-burning pilot ignition is not permitted. Therefore, DOE proposed to update the reporting requirements in 10 CFR 429.18(b)(3) to require that manufacturers of gas-fired steam boilers also include a declaration in the certification report that the basic model meets the design requirement criterion. *Id.*

In response to the August 2021 Certification NOPR, AHRI commented that the proposed expansion of reported ignition system type to include other gas-fired boilers would not be overly problematic. AHRI stated, however, that if DOE's intent was to ensure that standing pilots are not used, that including ignition systems in the declaration of compliance in 10 CFR 429.18(b)(3) would be a better solution. (AHRI, No. 166, p. 1)

DOE agrees with AHRI that including ignition systems in the declaration of compliance, as opposed to requiring manufacturers to specify the type of ignition system, is sufficient for determining compliance. As such, in this final rule, DOE is modifying the declaration of compliance in 10 CFR 429.18(b)(3) to include all boilers for which a design requirement applies. DOE is adding at 10 CFR 429.18(b)(3) a requirement that manufacturers of gas-fired boilers declare that the subject basic models do not incorporate a constant-burning pilot and that manufacturers of hot water boilers report whether the basic model is equipped with tankless domestic water heating coils (and if not, a declaration that the subject basic models include an automatic means for adjusting the water temperature). For gas-fired hot water boilers, both requirements apply, and thus, manufacturers will be required to separately declare compliance with both requirements. These changes will allow DOE to verify that boiler models subject to design requirements comply with those requirements. In addition, DOE is removing the existing requirement for

cast-iron sectional boilers to certify the ignition type, as it is duplicative with the declarations added by this final rule.

c. Rounding Requirements

In the August 2021 Certification NOPR, DOE proposed rounding requirements for the certification reporting requirements for standby mode and off mode energy consumption. Specifically, DOE proposed to require that values for standby mode and off mode energy consumption be rounded to the nearest 0.1 watts. 86 FR 43120, 43132.

In addition, the represented value of AFUE currently must be truncated to one-tenth of a percentage point. 10 CFR 429.18(a)(2)(vii). DOE proposed to modify this requirement to state that AFUE must be rounded to the nearest one-tenth of a percentage point. This change would treat consumer furnaces and boilers in a manner consistent with other types of covered products and equipment, for which represented values are generally required to be rounded rather than truncated. As discussed in the August 2021 Certification NOPR, this change could only increase the represented AFUE value, and as such, manufacturers would have an option of whether to re-rate the AFUE of existing models that would be impacted by this change. 86 FR 43120, 43132.

AHRI expressed support for the proposed AFUE rounding requirements. (AHRI, No. 166, p. 2) Bradford White likewise expressed support for the proposed AFUE, standby mode energy consumption, and off mode energy consumption rounding requirements, stating that these proposed requirements align with current industry standards. (Bradford White, No. 163, p. 2)

For the reasons discussed here and in the August 2021 Certification NOPR, in this final rule, DOE is adopting the rounding requirements as proposed in the August 2021 Certification NOPR.

3. Reporting Costs and Impacts

As discussed, in the August 2021 Certification NOPR, DOE proposed to align consumer furnace and boiler certification reporting requirements with the existing energy conservation standard requirements. 86 FR 43120, 43132.

For non-weatherized oil-fired consumer furnaces (including mobile home furnaces), electric consumer furnaces, and consumer boilers, the proposed changes would require manufacturers to report two additional values (*i.e.,* $P_{W,SB}$ and $P_{W,OFF}$) in their annual certification reports. For gas-fired hot water and gas-fired steam boiler models that are not cast-iron sectional boilers, the proposed changes would require additional reporting of the type of ignition system. However, as discussed previously, DOE has decided in this final rule not to require the reporting of the type of ignition system and is instead addressing the no-standing-pilot-light requirement through a required declaration.

Manufacturers of consumer furnaces and boilers are currently required to certify various items to DOE, depending on the product class and applicable standards, which can include AFUE, input rate, type of ignition system, and whether applicable design requirements are incorporated. Because manufacturers of these products are already submitting certification reports to DOE and should have readily available the information that DOE proposed to collect as part of the August 2021 Certification NOPR, DOE stated in the August 2021 Certification NOPR that it did not believe the revised reporting requirements would cause any appreciable change in reporting burden or hours as compared to what consumer furnace and boiler manufacturers do currently. Additionally, because the proposed AFUE rounding requirement would only increase represented AFUE values, manufacturers may choose to maintain current AFUE ratings; therefore, DOE tentatively determined that it did not expect any cost associated with this proposal. *Id.*

The only product class for which no certification reporting is currently required is electric steam boilers, as there is no AFUE standard or design requirement for this class. As proposed in the August 2021 Certification NOPR, there are now standby mode and off mode standards for electric steam boilers, so the addition of reporting requirements for $P_{W,SB}$ and $P_{W,OFF}$ would require new certification reporting for electric steam boilers, if manufacturers are not already doing so. *Id.*

DOE did not receive any comments regarding the certification reporting costs of the proposed amendments for consumer boilers and furnaces.

Based on the preceding discussion and the discussion in the August 2021 Certification NOPR, DOE makes a final determination that these amendments would not cause any measurable change in reporting burden or hours for manufacturers of consumer furnaces and boilers other than electric steam boilers. For electric steam boilers, the new reporting requirements established by this final rule will require new certification reporting for electric steam boiler manufacturers. Costs associated with the new reporting requirements for electric steam boilers are discussed in section IV.C.3 of this document.

*E. Grid-Enabled Consumer Water Heaters*

1. Scope of Applicability

As discussed in section I.B.5 of this document, DOE defines a ''grid-enabled water heater'' at 10 CFR 430.2, consistent with EPCA's definition at 42 U.S.C. 6295(e)(6)(A)(ii), to mean an electric resistance water heater that has a rated storage tank volume of more than 75 gallons, is manufactured on or after April 16, 2015, is equipped at the point of manufacture with an activation lock, and bears a permanent label applied by the manufacturer that is made of material not adversely affected by water, is attached by means of a non-water-soluble adhesive, and advises purchasers and end-users of the intended and appropriate use of the product as part of an electric thermal storage or demand response program.

2. Reporting

Currently, for grid-enabled consumer water heater basic models, manufacturers are required to report the uniform energy factor (''UEF''), the rated storage volume in gallons, the first-hour rating in gallons, the recovery efficiency in percent, a declaration that the model is a grid-enabled water heater, whether it is equipped at the point of manufacture with an activation lock, and whether it bears a permanent label applied by the manufacturer that advises purchasers and end-users of the intended and appropriate use of the product. 10 CFR 429.17(b)(2)(iii).

EPCA, as amended, requires manufacturers to report the quantity of grid-enabled water heaters that the manufacturer ships each year and requires DOE to keep the shipment data reported by manufacturers as confidential business information.[18] (42 U.S.C. 6295(e)(6)(C)(i)–(iii)) As stated in section I.B.5 of this document, the August 2015 Water Heater ECS Final Rule, which established definitions and energy conservation standards for grid-enabled water heaters, did not establish provisions to require the reporting of shipments by manufacturers. 80 FR 48004, 48009–48010. Therefore, DOE proposed in the August 2021 Certification NOPR to add reporting requirements to 10 CFR 429.17 that would require manufacturers to report

[18] EPCA also requires that utilities and other demand response and thermal storage program operators report annually the quantity of grid-enabled water heaters activated for their programs. (42 U.S.C. 6295(e)(6)(C)(ii))

the total number of grid-enabled water heaters shipped each year for sale in the U.S., along with the calendar year that the shipments cover, in accordance with the EPCA requirement. 86 FR 43120, 43133. DOE also proposed to state explicitly that the annual shipments of grid-enabled water heaters reported by manufacturers will be treated as confidential business information by the Department. *Id.* Because the annual shipments of grid-enabled water heaters would be treated differently than other water heater reporting requirements (*i.e.,* the shipments would be reported on an annual basis rather than ongoing based on model availability; and the reported shipments would be treated as confidential business information), DOE proposed that the annual shipments be reported separately from the other certification reporting requirements for water heaters in 10 CFR 429.17(b). *Id.*

AHRI and Bradford White expressed support for the proposed reporting requirement for the number of annual shipments of grid-enabled consumer water heaters, as well as the proposal that this information be reported separately from the information that is currently required under 10 CFR 429.17(b). (AHRI, No. 166, p. 2; Bradford White, No. 163, p. 1) The Joint Commenters commented that EPCA directs DOE to require reporting of both shipment and activation numbers for grid-enabled water heaters, and they urged DOE to begin requiring utilities and other demand response and thermal storage program operators to begin reporting the annual activation numbers. (Joint Commenters, No. 165, pp. 1–2)

Regarding the comment from the Joint Commenters, DOE notes that it already collects the quantity of activations from utilities and other demand response and thermal storage program operators, as required by EPCA, through the Energy Information Administration's forms EIA–861 and EIA–861S.

For the reasons discussed here and in the August 2021 Certification NOPR, in this final rule, DOE is adopting the reporting requirements for grid-enabled water heaters as proposed in the August 2021 Certification NOPR.

3. Reporting Costs and Impacts

As discussed in the August 2021 Certification NOPR, the addition of reporting requirements for annual shipments of grid-enabled consumer water heaters would newly require manufacturers to report this information. 86 FR 43120, 43132.

DOE did not receive any comments regarding the certification reporting costs of the proposed amendments for grid-enabled water heaters.

Costs associated with these new reporting requirements for grid-enabled water heaters are discussed in section IV.C.3 of this document.

*F. Dishwashers*

1. Scope of Applicability

DOE defines dishwashers as cabinet-like appliances which with the aid of water and detergent, wash, rinse, and dries (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.

2. Reporting

Under the existing requirements in 10 CFR 429.19(b)(2), a certification report must include the following public product-specific information: the estimated annual energy use in kilowatt hours per year (kWh/yr) and the water consumption in gallons per cycle. In addition, a certification report must include the following additional product-specific information: the capacity in number of place settings as specified in industry standard ANSI/Association of Home Appliance Manufacturers (''AHAM'') DW–1–2010 (''ANSI/AHAM DW–1–2010''); presence of a soil sensor (if yes, the number of cycles required to reach calibration); the water inlet temperature used for testing in degrees Fahrenheit (°F); the cycle selected for energy testing and whether that cycle is soil-sensing; the options selected for the energy test; and presence of a built-in water softening system (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). 10 CFR 429.19(b)(3).

In conducting testing according to DOE's test procedure, section 2.10 of appendix C1 specifies using Cascade with the Grease Fighting Power of Dawn powder as the detergent formulation, at half the quantity specified according to Section 4.1 of ANSI/AHAM DW–1–2010. During AHAM task group meetings in 2020 to establish an updated version of the industry standard, in which DOE participated, AHAM informed DOE that Cascade with the Grease Fighting Power of Dawn has been discontinued and has been replaced with Cascade Complete. AHAM has updated its industry standard to specify the use of Cascade Complete for testing.[19] Given that the currently specified detergent is no longer available on the market, DOE expects that manufacturers may need to (or have already had to) switch to the new detergent formulation to conduct testing according to appendix C1. On December 22, 2021, DOE proposed amendments to the test procedure for dishwashers, including an amendment to the detergent specifications for testing. 86 FR 72738, 72753.

DOE seeks to ensure that any assessment or enforcement testing conducted pursuant to 10 CFR 429.104 and 10 CFR 429.110, respectively, would be performed using the same detergent used by the manufacturer for certifying compliance with the applicable energy conservation standard. In the August 2021 Certification NOPR, DOE proposed to require that manufacturers indicate in the certification report whether Cascade Complete powder was used as the detergent formulation in lieu of Cascade with the Grease Fighting Power of Dawn. 86 FR 43120, 43133. DOE proposed to add this requirement to the list of additional product-specific information specified at 10 CFR 429.19(b)(3). *Id.*

DOE also proposed to reorganize the requirements specified at 10 CFR 429.19(b)(3) as a numbered list for easier readability. *Id.* In its proposed reorganization of these requirements, DOE had proposed to maintain the reported capacity (in number of place settings) as a non-public certification requirement under 10 CFR 429.19(b)(3). However, DOE currently includes the reported capacity among the publicly available information in the CCD,[20] as DOE determined that this information is useful for differentiating among models listed within the database and determining the applicable product class in 10 CFR 430.32(f)(1). In this final rule, DOE moves this certification requirement to the public requirements specified at 10 CFR 429.19(b)(2) to be consistent with how this reported information is currently presented to the public. DOE is adopting the other reorganized requirements as proposed.

AHAM commented in support of the proposed dishwasher certification requirement, stating that this requirement will ensure that any assessment and enforcement testing can be accurate and conducted with the same detergent used by the

[19] *See* AHAM DW–1–2020 and AHAM DW–2–2020, available at *www.aham.org.*

[20] The Compliance Certification Database for dishwashers is available at *www.regulations.doe.gov/certification-data/CCMS-4-Dishwashers.html.*

manufacturer when determining compliance. (AHAM, No. 167, p. 2)

For the reasons discussed here and in the August 2021 Certification NOPR, in this final rule, DOE is adopting the amended reporting requirements for dishwashers as proposed in the August 2021 Certification NOPR.

3. Reporting Costs and Impacts

In the August 2021 Certification NOPR, DOE had tentatively determined that the proposed additional reporting requirement would not impose additional costs for manufacturers because manufacturers of dishwashers are already submitting certification reports to DOE and should have readily available the information that DOE would be requiring (*i.e.,* whether a dishwasher model was tested using Cascade Complete powder as the detergent formulation in lieu of Cascade with the Grease Fighting Power of Dawn). DOE stated that it did not believe the revised reporting requirements would cause any measurable change in reporting burden or hours as compared to what dishwasher manufacturers are currently doing today. 86 FR 43120, 43134.

DOE did not receive any comments on the certification and reporting costs associated with the proposed reporting requirement for dishwashers. In this final rule, DOE makes a final determination that these amendments would not cause any measurable change in reporting burden or hours for dishwasher manufacturers.

*G. Commercial Clothes Washers*

1. Scope of Applicability

DOE defines ''commercial clothes washer'' to mean a soft-mounted front-loading or soft-mounted top-loading clothes washer that: (1) has a clothes container compartment that for horizontal-axis clothes washers is not more than 3.5 cubic feet (''cu ft''), and for vertical-axis clothes washers is not more than 4.0 cu ft; and (2) is designed for use in applications in which the occupants of more than one household will be using the clothes washer, such as multi-family housing common areas and coin laundries; or other commercial applications. 10 CFR 431.152; 42 U.S.C. 6311(21).

2. Reporting

Under the existing requirements in 10 CFR 429.46(b), a CCW certification report must include the following public information: the modified energy factor ($MEF_{J2}$) in cu ft/kWh/cycle and the integrated water factor (''IWF'') in gal/cu ft/cycle. 10 CFR 429.46(b)(2)(ii). DOE also maintains reporting requirements at 10 CFR 429.46(b)(2)(i) for models tested using appendix J1, which is no longer used as the basis for demonstrating compliance with energy conservation standards. Since January 1, 2018, CCW basic models are subject to an energy conservation standard using the $MEF_{J2}$ metric, and the water efficiency standard using IWF, both of which can only be measured using appendix J2, making the reporting requirements based on appendix J1 obsolete.[21]

Accordingly, DOE proposed in the August 2021 Certification NOPR to remove the reporting requirements currently specified at 10 CFR 429.46(b)(2)(i) for models tested using appendix J1. 86 FR 43120, 43134. DOE also proposed to update the term ''water factor'' in the test sampling plan for CCW at 10 CFR 429.46(a)(2)(i) to ''integrated water factor'' to match the current metric used as the basis for standards. *Id.*

AHAM commented in support of the removal of the outdated appendix J1 requirements. (AHAM, No. 167, p. 2)

For the reasons discussed here and in the August 2021 Certification NOPR, in this final rule, DOE is removing the appendix J1 reporting requirements as proposed in the August 2021 Certification NOPR.

In addition, DOE proposed to amend the CCW certification reporting requirements by adding to the list of reported values the clothes container capacity (in cubic feet), the type of loading (top-loading or front-loading), and the corrected remaining moisture content (''RMC'') value (expressed as a percentage). 86 FR 43120, 43134. DOE also proposed rounding instructions for each newly reported value. *Id.*

In general, AHAM requested DOE provide sufficient lead-time for any adopted amendments to the reporting requirements. (AHAM, No. 167, p. 2) As discussed, compliance with the amended reporting requirements is not required until 210 days after publication of this final rule. The specific reporting requirements are discussed in the following paragraphs.

a. Clothes Container Capacity

DOE's definition of ''commercial clothes washer'' at 10 CFR 431.152, which is consistent with the EPCA definition (*see* 42 U.S.C. 6311(21)), incorporates clothes container capacity, among other characteristics. Specifically, equipment meeting the definition of a CCW has a clothes container compartment that for horizontal-axis clothes washers is not more than 3.5 cubic feet, and for vertical-axis clothes washers is not more than 4.0 cubic feet (among other criteria). 10 CFR 431.152. Clothes container capacity is also a key parameter in the calculation of $MEF_{J2}$ and IWF, in that capacity is used to represent the per-cycle energy and water use on per-cubic-foot of capacity basis. To verify whether the information provided is consistent with the certifier's statement of compliance with standards, DOE proposed to amend 10 CFR 429.46(b)(2) to add clothes container capacity (in cubic feet) to the information required to be included in the certification report. 86 FR 43120, 43134.

DOE also proposed accompanying sampling provisions for determining the reported values for capacity. *Id.* Specifically, DOE proposed to add new paragraph (a)(3) in 10 CFR 429.46, which specifies that the reported capacity of a basic model shall be the mean of the measured clothes container capacity, ''C'', of all tested units of the basic model. *Id.* This new paragraph would parallel the existing requirement for RCWs in 10 CFR 429.20(a)(3).

AHAM stated that it did not oppose the proposal to require reporting clothes container capacity given that capacity is an element of determining whether clothes washers meet the definition of a ''commercial clothes washer'' and is important to the calculation of MEF and IWF. (AHAM, No. 167, pp. 2–3)

For the reasons discussed here and in the August 2021 Certification NOPR, in this final rule, DOE is adopting the amendments regarding container capacity as proposed in the August 2021 Certification NOPR.

b. Axis of Loading

DOE has established equipment classes for CCWs defined by axis of loading (*i.e.,* top-loading and front-loading). Separate energy conservation standards apply to each class. 10 CFR 431.156. As such, the axis of loading is integral in determining the energy conservation standard that applies to each basic model. In the August 2021 Certification NOPR, DOE proposed to amend 10 CFR 429.46(b)(2) to add the type of loading (top-loading or front-loading) to the information required to be included in the certification report. 86 FR 43120, 43134.

AHAM stated that it did not oppose the proposal to require reporting of loading axis. (AHAM, No. 167, p. 3)

[21] DOE removed appendix J1 and all references to appendix J1 in 10 CFR parts 429, 430, and 431 in the June 2022 RCW/CCW TP Final Rule. 87 FR 33316, 33319, 33363.

For the reasons discussed here and in the August 2021 Certification NOPR, in this final rule, DOE is adopting this amendment as proposed in the August 2021 Certification NOPR.

c. Remaining Moisture Content

DOE specifies product-specific enforcement provisions for ''clothes washers'', which includes both RCWs and CCWs. 10 CFR 429.134(c). Specifically, 10 CFR 429.134(c)(1), as amended by the June 2022 RCW/CCW TP Final Rule, specifies provisions for the determination of remaining moisture content (''RMC'').[22] The provisions at 10 CFR 429.134(c)(1)(i) address testing conducted to the new appendix J, and those at 10 CFR 429.134(c)(1)(ii) address testing conducted to appendix J2. In both cases, these provisions address anomalous RMC results that are not representative of a basic model's performance, as well as 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. These provisions describe DOE's approach for determining the final RMC value under each possible testing outcome: when the measured RMC value of a tested unit is equal to or lower than the certified RMC value of the basic model; when the measured RMC value of a tested unit is higher than the certified RMC value of the basic model but the difference between the measured and certified RMC values would not affect the unit's compliance with the applicable standards; and when the measured RMC value of a tested unit is higher than the certified RMC value of the basic model and the difference between the measured and certified RMC values would affect the unit's compliance with the applicable standards. These provisions are further differentiated according to whether DOE used the same test cloth lot or a different test cloth lot than was used by the manufacturer for testing and certifying the basic model.[23]

The application of this product-specific enforcement provision for clothes washers requires a certified value of ''corrected'' RMC[24] for each basic model. Therefore, DOE proposed to amend 10 CFR 429.46(b)(2) to add the corrected RMC value (expressed as a percentage) to the information required to be included in the certification report. 86 FR 43120, 43134.

DOE also proposed accompanying sampling provisions for determining the reported values for corrected RMC. *Id.* Specifically, DOE proposed to add new paragraph (a)(4) in 10 CFR 429.46, which specifies that the reported value of corrected RMC of a basic model shall be the mean of the final RMC value measured for all tested units of the basic model. *Id.* This new paragraph would parallel the existing requirements for RCWs in 10 CFR 429.20(a)(4).

AHAM stated that it did not oppose the proposal to require reporting corrected remaining moisture content and the proposed sampling provisions. (AHAM, No. 167, p. 3)

For the reasons discussed here and in the August 2021 Certification NOPR, in this final rule, DOE is adopting these amendments as proposed in the August 2021 Certification NOPR.

d. Rounding Instructions

In the August 2021 Certification NOPR, DOE proposed to specify at new § 429.46(c) that clothes container capacity must be rounded to the nearest 0.1 cubic feet (''cu ft''), and that corrected RMC must be rounded to the nearest 0.1 percentage point. 86 FR 43120, 43134. These rounding instructions are consistent with the existing rounding instructions for RCWs specified at 10 CFR 429.20(c).

AHAM stated that it did not oppose the proposed rounding requirements. (AHAM, No. 167, p. 3)

For the reasons discussed here and in the August 2021 Certification NOPR, in this final rule, DOE is adopting the rounding instructions as proposed in the August 2021 Certification NOPR.

3. Reporting Costs and Impacts

In the August 2021 Certification NOPR, DOE proposed adding three additional reported values for CCWs (*i.e.,* the clothes container capacity, the type of loading, and the corrected RMC value). 86 FR 43120, 43135. Currently, manufacturers report two values, as described in the previous section.

In the August 2021 Certification NOPR, DOE had tentatively determined that the amendment would not impose additional costs for manufacturers because manufacturers of CCWs 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. In particular, the clothes container capacity and corrected RMC values are already measured as part of the test procedure and are required for calculating the $MEF_{J2}$ metric under appendix J2.[25] DOE stated in the August 2021 Certification NOPR that it did not believe the revised reporting requirements would cause any measurable change in reporting burden or hours as compared to what CCW manufacturers are currently doing today. *Id.*

DOE did not receive any comments on the certification and reporting costs associated with the proposed reporting requirements for CCWs. In this final rule, DOE makes a final determination that these amendments to the reporting requirements for CCW would not cause any measurable change in reporting burden or hours for CCW manufacturers.

*H. Battery Chargers*

1. Scope of Applicability

This final rule applies to battery chargers, which DOE defines as a device that charges batteries for consumer products, including battery chargers embedded in other consumer products. 10 CFR 430.2.

2. Reporting

Under the existing requirements in 10 CFR 429.39(b), a certification report must include the following public product-specific information for all battery chargers other than uninterruptable power supplies: nameplate battery voltage of the test battery in volts (V), nameplate battery charge capacity of the test battery in ampere-hours (Ah), nameplate battery energy capacity of the test battery in watt-hours (Wh), 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). 10 CFR 429.39(b)(2).

In addition, a certification report must include the following additional product-specific information for all battery chargers other than uninterruptible power supplies: the manufacturer and model of the test battery, and the manufacturer and model, when applicable, of the external power supply. 10 CFR 429.39(b)(3).

Certification reports must also include the following product-specific information for all uninterruptible

[22] The RMC measurement is used to determine the per-cycle energy consumption for removal of moisture from the test load; *i.e.,* the ''drying energy'' portion of the $MEF_{J2}$ calculation in appendix J2 and the AEER calculation in new appendix J.

[23] *See* 87 FR 33316, 33369–33371 for additional discussion of the amendments adopted.

[24] ''Corrected'' RMC refers to the final RMC value obtained in Appendix J2 after applying specified correction factors (based on the lot of test cloth used for testing) to the ''uncorrected'' RMC value.

[25] Although not specifically mentioned in the August 2021 Certification NOPR, the clothes container capacity and corrected RMC values will also already be measured as part of the new appendix J test procedure, as required for calculating AEER or EER, as applicable to any future amended standards for CCWs.

power supplies: supported input dependency mode(s); active power in watts (W); apparent power in volt-amperes (VA); rated input and output voltages in volts (V); efficiencies at 25 percent, 50 percent, 75 percent and 100 percent of the reference test load; and average load adjusted efficiency of the lowest and highest input dependency modes. 10 CFR 429.39(b)(4).

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 battery chargers. In light of this omission, DOE proposed in the August 2021 Certification NOPR to explicitly specify in 10 CFR 429.12(d) that battery chargers be recertified annually on or before September 1. 86 FR 43120, 43135.

DOE received one comment regarding the proposed annual filing date for battery chargers. AHAM commented that the Appliance Standards and Rulemaking Federal Advisory Committee (''ASRAC'') recommended that DOE eliminate annual reporting requirements,[26] and only require that a model be certified whenever it is newly introduced, discontinued, or changed in a way that alters energy use. (AHAM, No. 167, p. 3–4) AHAM supported ASRAC's recommended removal of annual reporting requirements and opposed the addition of an annual reporting requirement for battery chargers. (*Id.*)

DOE is maintaining the annual reporting requirement for battery chargers with the amendments adopted in this final rule. The annual reporting requirement is consistent with the requirements for all other DOE covered products. For the reasons discussed in this final rule and in the August 2021 Certification NOPR, in this final rule, DOE is adopting the amendments to the reporting requirements for battery chargers as proposed.

3. Reporting Costs and Impacts

In the August 2021 Certification NOPR, DOE proposed no changes to the reported information required for battery chargers. DOE only proposed to specify the annual date by which manufacturers must submit annual certification filings to DOE. 86 FR 43120, 43135. DOE had tentatively determined that the amendment would not impose additional costs for manufacturers because manufacturers of battery chargers are already submitting certification reports to DOE. The requirement adopted in this final rule specifies that the annual reporting must be submitted on or before September 1. Specifying the annual date by which reports must be filed will not change the content or frequency of the report, and therefore DOE has determined that the amendment to the reporting requirements for battery chargers would not cause any measurable change in reporting burden or hours for CCW manufacturers.

*I. Dedicated-Purpose Pool Pumps*

1. Scope of Applicability

This final rule applies to DPPPs, which by DOE's definition includes self-priming pool filter pumps, non-self-priming pool filter pumps, waterfall pumps, pressure cleaner booster pumps, integral sand-filter pool pumps, integral-cartridge filter pool pumps, storable electric spa pumps, and rigid electric spa pumps. 10 CFR 431.462.

2. Reporting

Certification report requirements are specified in 10 CFR 429.59(b)(2)(iv) and (b)(3)(iv) for DPPPs subject to the test methods prescribed in § 431.464(b). However, in 10 CFR 429.12, certification is only required for covered equipment subject to an applicable energy conservation standard. Certain DPPPs that are subject to the test method, specifically waterfall pumps and polyphase self-priming pool filter pumps, are not subject to an energy conservation standard. Therefore, in the August 2021 Certification NOPR, DOE proposed to clarify the reporting requirements by removing the language in 10 CFR 429.59(b)(2)(iv) and (b)(3)(iv) that references the test method (as well as a reference to waterfall pumps). 86 FR 43120, 43135.

In addition, DOE proposed to amend the same provisions to specify that they do not apply to integral cartridge-filter and sand filter pool pumps. *Id.* Rather, because those pumps are subject to design requirements, they have separate reporting requirements in 10 CFR 429.59(b)(2)(v).

DOE received one comment in response to the proposal to clarify the certification requirement for certain models of DPPPs. NSF suggested revising the reference to the industry standard incorporated by reference. NSF stated that the reporting requirement should reference NSF/ANSI/CAN 50–2020, ''Equipment and Chemicals for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities'' and the correct Annex reference is now Normative Annex 3, Section N–3.3. (NSF, No. 168, p.1) DOE notes that this is the more recent version of the material incorporated by reference at 10 CFR 431.463 (NSF/ANSI 50–2015, ''Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities'', Annex C—Test methods for the evaluation of centrifugal pumps,'' Section C.3, ''self-priming capability''). Since this rulemaking is limited to certification, DOE is not incorporating the newer material by reference as part of this final rule. DOE will consider this new standard during the next rulemaking process for DPPPs.

DOE did not receive any other comments on its proposal to clarify the certification requirements for certain models of DPPPs and is finalizing them as proposed in the August 2021 Certification NOPR.

3. Reporting Costs and Impacts

In the August 2021 Certification NOPR, DOE proposed to clarify the existing certification requirements for DPPPs. 86 FR 43120, 43135. DOE did not receive any comments regarding the impact of the proposed amendment. DOE has determined that the amendment would not impose additional costs or burden for manufacturers.

*J. Revised Certification Templates*

DOE will revise the reporting templates 180 days prior to the compliance date for the amended certification requirements adopted in this rule. The specific templates that must be used for certifying compliance of covered products and equipment to DOE are available for download at *www.regulations.doe.gov/ccms/templates.*

*K. Effective and Compliance Dates*

The effective date for the adopted reporting requirement amendments will be 30 days after publication of this final rule in the **Federal Register**. Submission of the data specified by the amended reporting provisions will be required for the applicable certification reports that are required to be submitted under 10 CFR 429.12, beginning 210 days following publication of this final rule in the **Federal Register**, but certification reports may be submitted in accordance with these amended requirements prior to the compliance date if the manufacturer elects to do so.

[26] Strawman ASRAC Recommendation on Reducing Reporting Burden (available at: *www.regulations.gov/document/EERE-2013-BT-NOC-0005-0103*).

## IV. Procedural Issues and Regulatory Review

### A. Review Under Executive Orders 12866 and 13563

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), 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 final 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. OIRA has determined that this final regulatory action does not constitute a ''significant regulatory 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 a final regulatory flexibility analysis (''FRFA'') for any final rule where the agency was first required by law to publish a proposed rule 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 has concluded that the removal of outdated reporting requirements and the addition of new reporting requirements as adopted in this final rule will not impose additional costs for manufacturers of CFLKs, GSILs and IRLs, ceiling fans, consumer furnaces and boilers (except electric steam boilers), dishwashers, CCWs, battery chargers, and DPPPs 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 rulemaking, and for DPPPs, the proposed amendments clarify the existing reporting requirements. 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.

However, for electric steam boilers, no certification is currently required. This final rule is amending 10 CFR 429.18 to include a requirement to certify the standby mode and off mode energy consumption for electric steam boilers. This amendment aligns the certification requirements with the existing energy conservation standard requirements 10 CFR 430.32(e)(1)(iii) introductory text and (e)(2)(iii)(B). For electric steam boiler manufacturers that are not already certifying, the new certification requirements would result in additional paperwork costs. Likewise, for grid-enabled water heaters, this final rule is adding reporting requirements to align with the requirements of EPCA. EPCA, as amended, requires manufacturers to report the quantity of grid-enabled water heaters that the manufacturer ships each year and requires DOE to keep the shipment data reported by manufacturers as confidential business information. (42 U.S.C. 6295(e)(6)(C)(i)–(iii)) Therefore, grid-enabled water heater manufacturers will incur additional paperwork costs.

The Small Business Administration (''SBA'') considers a business entity to be a small business, if, together with its affiliates, it employs less than a threshold number of workers specified in 13 CFR part 121. The size standards and codes are established by the 2017 North American Industry Classification System (''NAICS'').

Electric steam boiler manufacturers 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 in this category. DOE used available public information to identify potential small manufacturers. DOE reviewed manufacturer literature to create a list of companies that import or otherwise manufacture the electric steam boilers covered by this rulemaking. Using these sources, DOE identified five manufacturers of electric steam boilers. Three of these five manufacturers are small businesses. DOE estimates that the increased certification burden will result in 35 hours per manufacturer to develop the required certification reports. Therefore, based on a fully burdened labor rate of $100 per hour, the estimated total annual cost to manufacturers would be $3,500 per manufacturer.[27] Using subscription-based market research tools (*e.g.,* Dun & Bradstreet company reports),[28] DOE developed annual revenue estimates for the three small businesses that manufacture electric steam boilers. The estimated annual revenue for the three small businesses ranges from $0.5 million to $24.1 million. Therefore, this additional certification cost of $3,500 per manufacturer represents less than 1 percent of each identified manufacturer's annual revenue.

[27] The estimates of 35 hours per response and $100 per hour fully burdened labor rate are based on the collection of information estimates for consumer products and commercial/industrial equipment subject to energy or water conservation standards. *See* 82 FR 57240 (Dec. 4, 2017).

[28] Dun & Bradstreet Hoovers subscription login is accessible at: *app.dnbhoovers.com/* (Last accessed May 9, 2022).

Grid-enabled water heater manufacturers are classified under NAICS code 335220, ''Major Household Appliance Manufacturing.'' The SBA sets a threshold of 1,500 employees or fewer for an entity to be considered as a small business in this category. DOE used available public information to identify potential small manufacturers. DOE accessed the CCD [29] and the certified product directory of AHRI,[30] and DOE also reviewed manufacturer literature. Using these sources, DOE identified four manufacturers of grid-enabled water heaters. The four manufacturers exceed the SBA threshold to be considered a small business. Thus, DOE did not identify any small business manufacturers of grid-enabled water heaters.

DOE reviewed this final rule under the provisions of the Regulatory Flexibility Act and the policies and procedures published on February 19, 2003. On the basis of the foregoing, DOE concludes that the impacts of the amendments to DOE's certification regulations adopted in this final rule will not have a ''significant economic impact on a substantial number of small entities.'' Accordingly, DOE has not prepared an FRFA for this final rule. DOE will transmit this certification of no significant impact on a substantial number of small entities and supporting statement of factual basis to the Chief Counsel for Advocacy of the Small Business Administration for review under 5 U.S.C. 605(b).

### *C. Review Under the Paperwork Reduction Act of 1995*

Manufacturers of CFLKs, GSILs, IRLs, ceiling fans, consumer furnaces and boilers (except for electric steam boilers), consumer water heaters, dishwashers, CCWs, battery chargers, and DPPPs 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, including any amendments adopted for those test procedures. DOE's current reporting requirements are approved under OMB Control Number 1910–1400.

#### 1. Description of the Requirements

DOE is amending the reporting requirements for CFLKs, GSILs, IRLs, ceiling fans, consumer furnaces and boilers, consumer water heaters, dishwashers, CCWs, battery chargers, and DPPPs, and has sent a revised information collection request 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 requiring that respondents 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 CFLKs, GSILs, IRLs, ceiling fans, consumer furnaces and boilers, consumer water heaters, dishwashers, CCWs, battery chargers, and DPPPs subject to the amended certification reporting requirements adopted in this final 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 determined that these amendments will not impose additional costs for manufacturers of CFLKs, GSILs, IRLs, ceiling fans, dishwashers, CCWs, battery chargers, most consumer furnaces and boilers, and most consumer water heaters, because manufacturers of these products or equipment are already submitting certification reports to DOE and should have readily available the information that DOE is requiring as part of this rulemaking. DOE has also determined that these amendments will not impose additional costs for manufacturers of DPPPs because the adopted language only clarifies the existing certification requirements.

DOE's amendments for the reporting requirements for electric steam boilers will require new certification reporting for electric steam boilers manufacturers and importers. DOE estimates there are five manufacturers of electric steam boilers that would have to submit annual certification reports to DOE for those products based on the adopted reporting requirements. The following section estimates the burden for these five electric steam boiler manufacturers.

*OMB Control Number:* 1910–1400.

*Form Number:* DOE F 220.7.

*Type of Review:* Regular submission.

*Affected Public:* Domestic manufacturers and importers of electric steam boilers 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:* $17,500 in recordkeeping/reporting costs.

For grid-enabled consumer water heaters, DOE is adding reporting requirements to 10 CFR 429.17 that will require manufacturers and importers to report the total number of grid-enabled water heaters shipped each year in accordance with the requirement in EPCA. The following are DOE estimates of the total annual reporting and recordkeeping burden imposed on manufacturers of grid-enabled consumer water heaters subject to the reporting provisions in this final rule. These estimates take into account the time necessary to develop testing documentation, maintain all the documentation supporting the development of the certified rating for each basic model, complete the certification, and submit all required documents to DOE electronically.

*OMB Control Number:* 1910–1400.

*Form Number:* DOE F 220.92.

*Type of Review:* Regular submission.

*Affected Public:* Manufacturers and importers of grid-enabled consumer water heaters covered by this rulemaking.

*Estimated Number of Respondents:* 4.

*Estimated Time per Response:* Certification reports, 35 hours.

*Estimated Total Annual Burden Hours:* 140.

*Estimated Total Annual Cost to the Manufacturers:* $14,000 in recordkeeping/reporting costs.

#### 4. Conclusion

DOE has concluded that the removal of outdated reporting requirements and the addition of reporting requirements as adopted in this final rule will not impose additional costs for manufacturers of CFLKs, GSILs, IRLs, ceiling fans, most consumer furnaces and boilers, dishwashers, CCWs, battery chargers, and DPPPs (see sections III.A.3, III.B.3, III.C.3, III.D.3, III.F.3, III.G.3, III.H.3, and III.I.3 of this document for a more complete discussion). Furthermore, DOE has concluded that there are five electric

[29] U.S. Department of Energy CCMS (Available at: *www.regulations.doe.gov/ccms*).

[30] AHRI Directory of Certified Product Performance (Available at: *www.ahridirectory.org/Search/SearchHome*).

steam boiler manufacturers and four consumer water heater manufacturers that will have to submit new annual certification reports to DOE for those products. For all other manufacturers of covered products or equipment described in this final rule, the public reporting burden for certification remains unchanged.

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 final rule, DOE establishes amended certification and reporting requirements for CFLKs, GSILs and IRLs, ceiling fans, consumer furnaces and boilers (except electric steam boilers), dishwashers, CCWs, battery chargers, and DPPPs. 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 certification and reporting requirements for 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 (August 4, 1999), imposes certain requirements on agencies formulating and implementing policies or regulations that preempt State law or that have federalism implications. The Executive order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. The Executive order also requires agencies to have an accountable process to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process it will follow in the development of such regulations. 65 FR 13735. DOE examined this final rule and determined that it will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. EPCA governs and prescribes Federal preemption of State regulations as to energy conservation for the products that are the subject of this final rule. States can petition DOE for exemption from such preemption to the extent, and based on criteria, set forth in EPCA. (42 U.S.C. 6297(d)) No further action is required by Executive Order 13132.

*F. Review Under Executive Order 12988*

Regarding the review of existing regulations and the promulgation of new regulations, section 3(a) of Executive Order 12988, ''Civil Justice Reform,'' 61 FR 4729 (Feb. 7, 1996), imposes on Federal agencies the general duty to adhere to the following requirements: (1) eliminate drafting errors and ambiguity; (2) write regulations to minimize litigation; (3) provide a clear legal standard for affected conduct rather than a general standard; and (4) promote simplification and burden reduction. Section 3(b) of Executive Order 12988 specifically requires that executive agencies make every reasonable effort to ensure that the regulation: (1) clearly specifies the preemptive effect, if any; (2) clearly specifies any effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction; (4) specifies the retroactive effect, if any; (5) adequately defines key terms; and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of Executive Order 12988 requires executive agencies to review regulations in light of applicable standards in sections 3(a) and 3(b) to determine whether they are met, or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, this final rule meets the relevant standards of Executive Order 12988.

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

Title II of the Unfunded Mandates Reform Act of 1995 (''UMRA'') requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. Public Law 104–4, sec. 201 (codified at 2 U.S.C. 1531). For a regulatory action resulting 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 final 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 final rule will not have any impact on the autonomy or integrity of the family as an institution. Accordingly, DOE has concluded that it is not necessary to prepare a Family Policymaking Assessment.

*I. Review Under Executive Order 12630*

DOE has determined, under Executive Order 12630, ''Governmental Actions and Interference with Constitutionally Protected Property Rights,'' 53 FR 8859 (March 18, 1988), that this regulation will 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 final rule under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

*K. Review Under Executive Order 13211*

Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use,'' 66 FR 28355 (May 22, 2001), requires Federal agencies to prepare and submit to OMB, a Statement of Energy Effects for any 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 significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use if the regulation is implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use.

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

*L. Review Under Section 32 of the Federal Energy Administration Act of 1974*

Under section 301 of the Department of Energy Organization Act (Pub. L. 95–91; 42 U.S.C. 7101), DOE must comply with section 32 of the Federal Energy Administration Act of 1974, as amended by the Federal Energy Administration Authorization Act of 1977 (15 U.S.C. 788; ''FEAA''). Section 32 essentially provides in relevant part that, where a proposed rule authorizes or requires use of commercial standards, the notice of proposed rulemaking must inform the public of the use and background of such standards. In addition, section 32(c) requires DOE to consult with the Attorney General and the Chairman of the Federal Trade Commission (''FTC'') concerning the impact of the commercial or industry standards on competition.

The modifications to the certification reporting requirements for CFLKs, GSILs, IRLs, ceiling fans, consumer furnaces and boilers, consumer water heaters, dishwashers, CCWs, battery chargers, and DPPPs adopted in this final rule do not incorporate testing methods contained in any commercial standards.

*M. Materials Incorporated by Reference*

The Director of the Federal Register previously approved the following standards from the Association of Home Appliance Manufacturers (''AHAM'') and the American National Standards Institute (''ANSI'') for incorporation by reference into §§ 429.19 and 429.59: ANSI/AHAM DW–1–2010, ''Household Electric Dishwashers'', and NSF International (NSF)/ANSI 50–2015, ''Equipment For Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities,'' Annex C—''Test methods for the evaluation of centrifugal pumps,'' Section C.3, ''self-priming capability.''

*N. Congressional Notification*

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

## V. Approval of the Office of the Secretary

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

## List of Subjects in 10 CFR Part 429

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

## Signing Authority

This document of the Department of Energy was signed on July 14, 2022, by Kelly J. Speakes-Backman, Principal Deputy 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 July 15, 2022.

**Treena V. Garrett,**

*Federal Register Liaison Officer, U.S. Department of Energy.*

For the reasons stated in the preamble, DOE amends part 429 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.

■ 2. Section 429.12 is amended by revising paragraph (d) to read as follows:

### § 429.12 General requirements applicable to certification reports.

* * * * *

(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; and Commercial heating, ventilating, air conditioning (HVAC) equipment. | July 1. |
| 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; and Battery chargers | September 1. |
| Residential clothes washers; Residential clothes dryers; Direct heating equipment; Cooking products; and Commercial clothes washers. | October 1. |

* * * * *

■ 3. Section 429.17 is amended by adding a note before paragraph (a) and paragraph (c) to read as follows:

**§ 429.17 Water heaters.**

**Note 1 to § 429.17.** Prior to February 17, 2023, certification reports must be submitted as required either in this section or 10 CFR 429.17 as it appears in the 10 CFR parts 200 through 499 edition revised as of January 1, 2022. On or after February 17, 2023, certification reports must be submitted as required in this section.

* * * * *

(c) *Reporting of annual shipments for grid-enabled water heaters.* Pursuant to 42 U.S.C. 6295(e)(6)(C)(i), manufacturers of grid-enabled water heaters must report the total number of grid-enabled water heater units shipped for sale in the U.S. by the manufacturer for the previous calendar year (*i.e.,* January 1st through December 31st), as well as the calendar year that the shipments cover, starting on or before May 1, 2023, and annually on or before May 1 each year thereafter. This information shall be reported separately from the certification report required under paragraph (b)(2) of this section, and must be submitted to DOE in accordance with the submission procedures set forth in § 429.12(h). DOE will consider the annual reported shipments to be confidential business information without the need for the manufacturer to request confidential treatment of the information pursuant to § 429.7(c).

■ 4. Section 429.18 is amended by:

■ a. Revising the section heading;

■ b. Adding a note before paragraph (a); and

■ c. Revising paragraphs (a)(2)(vii) and (b)(2) and (3).

The addition and revisions read as follows:

**§ 429.18 Consumer furnaces.**

**Note 1 to § 429.18.** Prior to February 17, 2023, certification reports must be submitted as required either in this section or 10 CFR 429.18 as it appears in the 10 CFR parts 200 through 499 edition revised as of January 1, 2022. On or after February 17, 2023, certification reports must be submitted as required in this section.

(a) * * *

(2) * * *

(vii) The represented value of annual fuel utilization efficiency must be rounded to the nearest one-tenth of a percentage point. The represented values of standby mode power and off mode power must be rounded to the nearest one-tenth of a watt.

(b) * * *

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

(i) For consumer furnaces and boilers: The annual fuel utilization efficiency (AFUE) in percent (%) and the input capacity in British thermal units per hour (Btu/h).

(ii) For non-weatherized oil-fired furnaces (including mobile home furnaces), electric furnaces, and boilers: The standby mode power consumption ($P_{W,SB}$) and off mode power consumption ($P_{W,OFF}$) in watts.

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

(i) For cast-iron sectional boilers: A declaration of whether certification is based on linear interpolation or testing.

(ii) For gas-fired hot water boilers and gas-fired steam boilers: A declaration that the manufacturer has not incorporated a constant-burning pilot.

(iii) For gas-fired hot water boilers, oil-fired hot water boilers, and electric hot water boilers: Whether the boiler is equipped with tankless domestic water heating coils, and if not, a declaration that the manufacturer has incorporated an automatic means for adjusting water temperature).

* * * * *

■ 5. Section 429.19 is amended by:

■ a. Adding a note before paragraph (a); and

■ b. Revising paragraphs (b)(2) and (3).

The addition and revisions read as follows:

**§ 429.19 Dishwashers.**

**Note 1 to § 429.19.** Prior to February 17, 2023, certification reports must be submitted as required either in this section or 10 CFR 429.19 as it appears in the 10 CFR parts 200 through 499 edition revised as of January 1, 2022. On or after February 17, 2023, certification reports must be submitted as required in this section.

* * * * *

(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 as specified in ANSI/AHAM DW–1–2010 (incorporated by reference, see § 429.4).

(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;

(iv) The options selected for the energy test;

(v) 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; and

(vi) Indication of whether Cascade Complete powder was used as the detergent formulation in lieu of Cascade with the Grease Fighting Power of Dawn powder.

■ 6. Section 429.27 is amended by:

■ a. Adding a note before paragraph (a); and

■ b. Revising paragraphs (b)(2)(ii) and (iii).

The addition and revisions read as follows:

**§ 429.27 General service fluorescent lamps, general service incandescent lamps, and incandescent reflector lamps.**

**Note 1 to § 429.27.** Prior to February 17, 2023, certification reports must be submitted as required either in this section or 10 CFR 429.27 as it appears in the 10 CFR parts 200 through 499 edition revised as of January 1, 2022. On or after February 17, 2023, certification reports must be submitted as required in this section.

* * * * *

(b) * * *

(2) * * *

(ii) For incandescent reflector lamps: The testing laboratory's International Laboratory Accreditation Cooperation (ILAC) accreditation body's identification number or other approved identification assigned by the ILAC accreditation body, production dates of the units tested, the 12-month average lamp efficacy in lumens per watt (lm/W), lamp wattage (W), rated voltage (V), diameter in inches, and CRI.

(iii) For general service incandescent lamps: The testing laboratory's ILAC accreditation body's identification number or other approved identification assigned by the ILAC accreditation body, production dates of the units tested, the 12-month average maximum rate wattage in watts (W), the 12-month average minimum rated lifetime (hours), the 12-month average CRI, and initial lumen output in lumens (lm).

* * * * *

■ 7. Section 429.32 is amended by:

■ a. Adding a note before paragraph (a);

■ b. Revising paragraph (b); and

■ c. Adding paragraph (c).

The revision and additions read as follows:

**§ 429.32 Ceiling fans.**

**Note 1 to § 429.32.** Prior to February 17, 2023, certification reports must be submitted as required either in this section or 10 CFR 429.32 as it appears in the 10 CFR parts 200 through 499 edition revised as of January 1, 2022. On or after February 17, 2023, certification reports must be submitted as required in this section.

* * * * *

(b) *Certification reports.* (1) The requirements of § 429.12 are applicable to ceiling fans; and

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

(i) For all ceiling fans: Blade span (in), and the number of speed control settings.

(ii) For small-diameter ceiling fans: A declaration of whether the ceiling fan is a multi-head ceiling fan, and the ceiling fan efficiency (CFM/W).

(iii) For large-diameter ceiling fans: Ceiling fan energy index (CFEI) for high speed, and 40 percent speed or the nearest speed that is not less than 40 percent speed.

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

(i) For all ceiling fans: A declaration that the manufacturer has incorporated the applicable design requirements.

(ii) For small-diameter ceiling fans: Standby power, blade edge thickness (in), airflow (CFM) at high speed, and blade revolutions per minute (RPM) at high speed.

(iii) For low-speed small-diameter ceiling fans: The distance (in) between the ceiling and the lowest point on the fan blades (in both hugger and standard configurations for multi-mount fans).

(c) *Rounding requirements.* Any represented value of ceiling fan efficiency, as described in paragraph (a)(2)(i) of this section, must be expressed in cubic feet per minute per watt (CFM/W) and rounded to the nearest whole number. Any represented value of ceiling fan energy index, as described in paragraph (a)(2)(i) of this section, must be expressed in CFEI and rounded to the nearest hundredth.

■ 8. Section 429.33 is amended by:

■ a. Adding a note before paragraph (a); and

■ b. Revising paragraphs (b) and (c).

The addition and revisions read as follows:

**§ 429.33 Ceiling fan light kits.**

**Note 1 to § 429.33.** Prior to February 17, 2023, certification reports must be submitted as required either in this section or 10 CFR 429.33 as it appears in the 10 CFR parts 200 through 499 edition revised as of January 1, 2022. On or after February 17, 2023, certification reports must be submitted as required in this section.

* * * * *

(b) *Certification reports.* (1) The requirements of § 429.12 are applicable to ceiling fan light kits; and

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

(i) For ceiling fan light kits manufactured prior to January 1, 2020:

(A) For ceiling fan light kits with sockets for medium screw base lamps: The rated wattage in watts (W) and the system's efficacy in lumens per watt (lm/W).

(B) For ceiling fan light kits with pin-based sockets for fluorescent lamps: The rated wattage in watts (W), the system's efficacy in lumens per watt (lm/W), and the length of the lamp in inches (in).

(C) For ceiling fan light kits with any other socket type: The rated wattage in watts (W) and the number of individual sockets.

(ii) For ceiling fan light kits manufactured on or after January 1, 2020:

(A) For each basic model of lamp and/or each basic model of integrated solid-state lighting (SSL) circuitry packaged with the ceiling fan light kit, the brand, basic model number, test sample size, kind of lamp (*i.e.,* general service fluorescent lamp (GSFL); fluorescent lamp with a pin base that is not a GSFL; compact fluorescent lamp (CFL) with a medium screw base; CFL with a base that is not medium screw base [*e.g.,* candelabra base]; other fluorescent lamp [not GSFL or CFL]; general service incandescent lamp (GSIL); candelabra base incandescent lamp; intermediate base incandescent lamp; incandescent reflector lamp; other incandescent lamp [not GSIL, IRL, candelabra base or intermediate base incandescent lamp]; integrated LED lamp; integrated SSL circuitry; other SSL products [not integrated LED lamp]; other lamp not specified), lumen output in lumens (lm), and efficacy in lumens per watt (lm/W).

(B) For each lamp basic model identified in paragraph (b)(2)(ii)(A) of this section that is a compact fluorescent lamp with a medium screw base, the lumen maintenance at 40 percent of lifetime in percent (%) (and whether the value is estimated), the lumen maintenance at 1,000 hours in percent (%), the lifetime in hours (h) (and whether the value is estimated), and the sample size for rapid cycle stress testing and results in number of units passed (and whether the value is

estimated). Estimates of lifetime, lumen maintenance at 40 percent of lifetime, and rapid cycle stress test surviving units may be reported until testing is complete. Manufacturers are required to maintain records of the development of all estimated values and any associated initial test data in accordance with § 429.71.

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

(i) For ceiling fan light kits with any other socket type manufactured prior to January 1, 2020, a declaration that the basic model meets the applicable design requirement, and the features that have been incorporated into the ceiling fan light kit to meet the applicable design requirement (*e.g.,* circuit breaker, fuse, ballast).

(ii) For ceiling fan light kits manufactured on or after January 1, 2020:

(A) A declaration that the ceiling fan light kit is packaged with lamps sufficient to fill all of the lamp sockets;

(B) For each basic model of lamp and/or each basic model of integrated SSL circuitry packaged with the ceiling fan light kit, a declaration that, where applicable, the lamp basic model was tested by a laboratory accredited as required under § 430.25 of this chapter; and

(C) For ceiling fan light kits with pin-based sockets for fluorescent lamps, a declaration that each ballast for such lamps is an electronic ballast.

(c) *Rounding requirements.* (1) Any represented value of efficacy of ceiling fan light kits as described in paragraph (a) of this section must be expressed in lumens per watt and rounded to the nearest tenth of a lumen per watt.

(2) Round lumen output to three significant digits.

(3) Round lumen maintenance at 1,000 hours to the nearest tenth of a percent.

(4) Round lumen maintenance at 40 percent of lifetime to the nearest tenth of a percent.

(5) Round lifetime to the nearest whole hour.

■ 9. Section 429.46 is amended by:
■ a. Adding a note before paragraph (a);
■ b. Revising paragraph (a)(2)(i) introductory text;
■ c. Adding paragraphs (a)(3) and (4);
■ d. Revising paragraph (b)(2); and
■ e. Adding paragraph (c).

The revisions and additions read as follows:

### § 429.46 Commercial clothes washers.

**Note 1 to § 429.46.** Prior to February 17, 2023, certification reports must be submitted as required either in this section or 10 CFR 429.46 as it appears in the 10 CFR parts 200 through 499 edition revised as of January 1, 2022. On or after February 17, 2023, certification reports must be submitted as required in this section.

(a) * * *

(2) * * *

(i) Any represented value of the integrated water factor or other measure of energy or water consumption of a basic model for which consumers would favor lower values shall be greater than or equal to the higher of:

* * * * *

(3) The clothes container capacity of a basic model reported in accordance with paragraph (b)(2) of this section shall be the mean of the measured clothes container capacity (C) of all tested units of the basic model.

(4) The corrected remaining moisture content (RMC) of a basic model reported in accordance with paragraph (b)(2) of this section shall be the mean of the final RMC value measured for all tested units of the basic model.

(b) * * *

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

(i) The modified energy factor ($MEF_{J2}$), in cubic feet per kilowatt-hour per cycle (cu ft/kWh/cycle);

(ii) The integrated water factor (IWF), in gallons per cycle per cubic feet (gal/cycle/cu ft);

(iii) The clothes container capacity, in cubic feet (cu ft);

(iv) The type of loading (top-loading or front-loading); and

(v) The corrected RMC (expressed as a percentage).

(c) *Reported values.* Values reported pursuant to this section must be rounded as follows: Clothes container capacity to the nearest 0.1 cu ft, and corrected RMC to the nearest 0.1 percentage point.

■ 10. Section 429.59 is amended by:
■ a. Adding a note before paragraph (a); and
■ b. Revising paragraphs (b)(2)(iv) and (b)(3)(iv).

The addition and revisions read as follows:

### § 429.59 Pumps.

**Note 1 to § 429.59.** Prior to February 17, 2023, certification reports must be submitted as required either in this section or 10 CFR 429.59 as it appears in the 10 CFR parts 200 through 499 edition revised as of January 1, 2022. On or after February 17, 2023, certification reports must be submitted as required in this section.

* * * * *

(b) * * *

(2) * * *

(iv) For a dedicated-purpose pool pump (other than an integral cartridge-filter or sand-filter pool pump): weighted energy factor (WEF) in kilogallons per kilowatt-hour (kgal/kWh); rated hydraulic horsepower in horsepower (hp); the speed configuration for which the pump is being rated (*i.e.,* single-speed, two-speed, multi-speed, or variable-speed); true power factor at all applicable test procedure load points i (dimensionless), as specified in Table 1 of appendix B or C to subpart Y of part 431 of this chapter, as applicable; dedicated-purpose pool pump nominal motor horsepower in horsepower (hp); dedicated-purpose pool pump motor total horsepower in horsepower (hp); dedicated-purpose pool pump service factor (dimensionless); for self-priming pool filter pumps and non-self-priming pool filter pumps: the maximum head (in feet) which is based on the mean of the units in the tested sample; a statement regarding whether freeze protection is shipped enabled or disabled; for dedicated-purpose pool pumps (DPPPs) distributed in commerce with freeze protection controls enabled: the default dry-bulb air temperature setting (in °F), default run time setting (in minutes), and default motor speed (in rpm); for self-priming pool filter pumps a statement regarding whether the pump is certified with NSF/ANSI 50–2015 (incorporated by reference, see § 429.4) as self-priming; and, for self-priming pool filter pumps that are not certified with NSF/ANSI 50–2015 as self-priming: the vertical lift (in feet) and true priming time (in minutes) for the DPPP model.

* * * * *

(3) * * *

(iv) For a dedicated-purpose pool pump (other than an integral cartridge-filter or sand-filter pool pump): Calculated driver power input and flow rate at each load point i ($P_i$ and $Q_i$), in horsepower (hp) and gallons per minute (gpm), respectively.

* * * * *

■ 11. Section 429.70 is amended by adding paragraph (i) to read as follows:

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

* * * * *

(i) *Alternative determination of standby mode and off mode power consumption for untested basic models of consumer furnaces and consumer boilers.* For models of consumer furnaces or consumer boilers that have

identical standby mode and off mode power consuming components, ratings for untested basic models may be established in accordance with the following procedures in lieu of testing. This method allows only for the use of ratings identical to those of a tested basic model as provided in paragraphs (i)(1) and (2) of this section; simulations or other modeling predictions for ratings for standby mode power consumption and off mode power consumption are not permitted.

(1) *Consumer furnaces.* Rate the standby mode and off mode power consumption of an untested basic model of a consumer furnace using the standby mode and off mode power consumption obtained from a tested basic model as a basis for ratings if all aspects of the electrical components, controls, and design that impact the standby mode power consumption and off mode power consumption are identical.

(2) *Consumer boilers.* Rate the standby mode and off mode power consumption of an untested basic model of a consumer boiler using the standby mode and off mode power consumption obtained from a tested basic model as a basis for ratings if all aspects of the electrical components, controls, and design that impact the standby mode power consumption and off mode power consumption are identical.

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