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AHRI Comments in Response to CEC Proposed 2022 Amendments to the Appliance Efficiency Regulations (45-day language)

Additional submitted attachment is included below.

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January 8, 2024

Mr. Peter Strait
California Energy Commission
Docket Unit, MS-4
Re: Docket No. 22-AAER-04
1516 Ninth Street
Sacramento, CA 95814-5512

(Submitted electronically to Docket)

Re: AHRI Comments in Response to California Energy Commission's Proposed 2022 Amendments to the Appliance Efficiency Regulations (45-Day Language) *[Docket Number 22-AAER-04]*

Dear Mr. Strait:

These comments are submitted in response to the California Energy Commission (CEC) Notice of Proposed Action, published on November 20, 2023, with proposed amendments to California's Appliance Efficiency Standards in Title 20 of the California Code of Regulations, Sections 1601 through 1609.

AHRI represents more than 330 manufacturers of air conditioning, heating, and refrigeration equipment. It is an internationally recognized advocate for the HVACR industry and certifies the performance of many of the products manufactured by its members. In North America, the annual economic activity resulting from the HVACR industry is approximately $256 billion. In the United States alone, AHRI member companies, along with distributors, contractors, and technicians employ more than 1.3 million people.

After careful review of the 45-day language, we have concluded that CEC is on track to publish a workable amendment to Title 20. AHRI commends CEE on the care it has taken with proposed modification to Title 20 for the many products included in the scope of this rulemaking. As such, we only have feedback on a few specific items in this proposed rule.

Section 1602. Definitions

(a) General.

- **Distributor.** The Department of Energy's (DOE) definition of Distributor is more specific than what CEC has proposed. DOE only includes a definition in 42 U.S. Code § 6291 and it is specific to consumer products, "(14) The term "distributor" means a person (other than a manufacturer or retailer) to whom a consumer product is delivered or sold

for purposes of distribution in commerce." A similar definition is not included in the federal commercial/industrial counterpart (Part A-1 – 42 U.S. Code § 6311) definitions. DOE's definition is limited to consumer products for the purposes of CAC/HP Regional Standards Enforcement. If Distributor is referenced for any other commercial/industrial product other than "Commercial pre-rinse spray valve" (Title 20 1602 (h)), then AHRI requests CEC reconsider the proposed changes and harmonize with the DOE.

(c) Air Conditioners, Air Filters, and Heat Pump Water-Heating Packages

- **Alternative efficiency determination method (AEDM).** AHRI is confused by the addition of a definition for AEDM with metrics for consumer central air conditioner (CAC) or heat pump (HP). AEDMs are used in lieu of actual testing to simulate the energy consumption or efficiency of certain basic models of covered equipment under DOE's test procedure conditions, not just CAC/HP. Title 20 currently has two definitions for AEDM – one specific to electric motors and one for state-regulated compressors.[1] 10 CFR § 429.70 includes provisions for use an AEDM in §§ 429.14 through 429.69, which includes products beyond consumer CAC/HP. Indeed, in proposed regulatory language, Section 1604 (c)(1), AEDM is included in new underlined text, "test methods for central air conditioners are shown in Table C-1 and include but not limited to provisions on alternative efficiency determination method (AEDM) and additional testing requirements concerning selection of models to be tested if an AEDM is to be applied, in 10 C.F.R. sections 429.12, 429.16, and 429.70." All products in Table C-1 are permitted to use AEDMs, but there are many different metrics. Footnote 3 to Table D-3 also cites AEDMs for commercial and industrial fans and blowers. Fans do not use the same metrics as CAC/HP, so there is a conflict between the footnote and the narrowly proposed AEDM definition.

  AHRI recommends CEC adopt a definition for Commercial HVAC, Refrigeration, and WH Equipment AEDM that does not reference specific product metrics. AHRI notes that AEDMs are also permissible and critical for commercial fan representations. Should CEC opt to include product-specific AEDM definitions, there should be one for commercial fans as well to support text included in Footnote 3 to Table D-3.

- **Direct expansion-dedicated outdoor air system (DX–DOAS).** AHRI supports the proposed DX-DOAS definition, but notes it is a subcategory of *Unitary dedicated outdoor air system*, or *unitary DOAS*. In 10 CFR § 431.92, DOE defines *unitary DOAS* to be *"*a category of small, large, or very large commercial package air-conditioning and heating equipment that is capable of providing ventilation and conditioning of 100-percent outdoor air and is marketed in materials (including but not limited to, specification sheets, insert sheets, and online materials) as having such capability." AHRI recommends adding a definition for unitary DOAS or including the requirements for

[1] Per Title 20, Section 1602:

"Alternative efficiency determination method" or AEDM, means, with respect to an electric motor or a small electric motor, a method of calculating the total power loss and average full load efficiency.

"Alternative efficiency determination method" or AEDM, means, with respect to a state-regulated compressor, a method of calculating the package isentropic efficiency, package specific power, pressure ratio at full-load operating pressure, full-load actual volume flow rate, or full-load operating pressure

capability of providing ventilation and conditioning of 100-percent outdoor air and marketing in the DX-DOAS definition to be completely consistent with DOE.

(d) Portable Air Conditioners, Evaporative Coolers, Ceiling Fans, Ceiling Fan Light Kits, Whole House Fans, Residential Exhaust Fans, Dehumidifiers, Residential Furnace Fans, and Commercial and Industrial Fans or Blowers

- **Commercial and industrial fan or blower.** AHRI supports the proposed modifications to the definition, particularly as it relates to embedded fans (1)(I) and (1)(J). These two exceptions clearly maintain CEC's existing regulatory scope. Embedded fans have complex testing, labeling, and enforcement implications. Further, the data from fan suppliers to properly evaluate impact on embedded fans is not yet available. AHRI also appreciates CEC's attention to the continued exclusion of replacement embedded fans in (1)(J). Existing HVACR and water-heating equipment is built, tested, and certified as a completed design that is reliant on a specific set of components. Continued access to replacement embedded fans is critical to California consumers and businesses.

Section 1605.1. Federal and State Standards for Federally Regulated Appliances.

Table E-4. Standards for Commercial Boilers. Several categories of products, such as Oil-fired Steam Boilers > 2,500,000 Btu/h have federal standards not reflected in Title 20. On September 19, 2023, DOE issued a technical amendment final rule for Energy Conservation Standards for Commercial Packaged Boilers with current federal standards.[2] AHRI recommends modifying Table E-4 to properly reflect federal standards for commercial boilers in Title 20.

Section 1606. Filing by Manufacturers; Listing of Appliances in the MAEDbS.

Table X. Data Submittal Requirements. AHRI appreciates work by CEC staff to harmonize MAEDbS with DOE federal certification requirements and encourages this to continue. DOE recently solicited stakeholder feedback in response to the September 29, 2023 Notice of Proposed Rulemaking (NOPR) on Certification Requirements, Labeling Requirements, and Enforcement Provisions for Certain Consumer Products and Commercial Equipment, Docket No. EERE-2020-BT-STD-0007. Of the many products DOE sought feedback on, AHRI members manufacture Air Cleaners; Central Air Conditioners and Heat Pumps (CAC/HP); Pool Heaters; Computer Room Air Conditioners (CRAC); Direct Expansion-Dedicated Outdoor Air Systems (DX-DOAS); Air Cooled; Three-Phase, Small Commercial Air Conditioners and Heat Pumps with a Cooling Capacity of Less Than 65,000 Btu/h (3-ph Small CAC/HP) and Air-Cooled, Three-Phase, Variable Refrigerant Flow Air Conditioners and Heat Pumps with a Cooling Capacity of Less Than 65,000 Btu/h (3-ph Small VRF); Commercial Water Heating Equipment (CWH); Automatic Commercial Ice Makers (ACIM); Walk-In Coolers and Freezers (WICF); and Single Package Vertical Units (SPVU). We recommend that CEC publish 15-day language after DOE has published the final rule so that federal and state certification submissions are harmonized. AHRI comments, submitted November 28, 2023, are attached for reference. (Exhibit-1)

[2] Energy Conservation Program: Energy Conservation Standards for Commercial Packaged Boilers, 88 Fed. Reg. 64,351 (Sep. 19, 2023) (codified at 10 C.F.R. pt. 430).

Thank you for the review and consideration of AHRI's comments. If you have any questions regarding this submission, please do not hesitate to contact me.

Sincerely,

Laura Petrillo-Groh, PE
Senior Director, Regulatory Affairs
Direct: (703) 600-0335
Email: LPetrillo-Groh@ahrinet.org

Exhibit

Exhibit 1 – AHRI Comments – DOE Notice of Proposed Rulemaking on Certification Requirements, Labeling Requirements, and Enforcement Provisions for Certain Consumer Products and Commercial Equipment; Docket No. EERE–2023–BT–CE–0001

Exhibit-1

November 28, 2023

Mr. Lucas Adin
Ms. Amelia Whiting
U.S. Department of Energy
Office of Energy Efficiency and Renewable Energy
Building Technologies Program and Office of the General Counsel
1000 Independence Avenue, S.W.
Washington, D.C. 20585-0121

(Submitted Via e-mail: ApplianceStandardsQuestions@ee.doe.gov)

Re: AHRI Comments – DOE Notice of Proposed Rulemaking on Certification Requirements, Labeling Requirements, and Enforcement Provisions for Certain Consumer Products and Commercial Equipment; Docket No. EERE–2023–BT–CE–0001

Dear Mr. Adin and Ms. Whiting:

The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) respectfully submits the following comments to the Department of Energy (DOE or Department) on its Notice of Proposed Rulemaking (NOPR) on Certification Requirements, Labeling Requirements, and Enforcement Provisions for Certain Consumer Products and Commercial Equipment, Docket No. EERE-2020-BT-STD-0007, published in the *Federal Register*, on September 29, 2023.

AHRI represents more than 330 manufacturers of air conditioning, heating, and refrigeration equipment. It is an internationally recognized advocate for the HVACR industry and certifies the performance of many of the products manufactured by its members. In North America, the annual economic activity resulting from the HVACR industry is approximately $256 billion. In the United States alone, AHRI member companies, along with distributors, contractors, and technicians employ more than 1.3 million people.

Summary

AHRI appreciates the opportunity to comment on the proposed amendments to DOE's certification, labeling, and enforcement regulations. As both a third-party certification body that test thousands of products annually and an HVACR and water heating trade association, AHRI is uniquely positioned to provide valuable feedback on the proposal. These comments reflect both the interests of our membership and the perspective of third-party testing bodies subject to the proposed amendments. This letter comments on the full scope of proposals related to our members' products.

AHRI notes the care taken by DOE staff to develop proposed amendments to certification provisions, labeling requirements, and enforcement provisions for the many products covered by this NOPR. Indeed, for the many products and equipment addressed, DOE has identified areas in which the certification reporting requirements are not consistent with the information required to verify compliance with current energy conservation standards, new information that needs to be collected. We are largely supportive of changes and have several recommendations for improvement and clarification regarding proposed certification requirements. As for the proposed labeling requirements, AHRI is concerned about unnecessary and overly burdensome requirements for Walk-In Coolers and Freezers.

The review of this large package raises some questions regarding the process DOE relies upon in this final stage of the rulemaking process. DOE has robust procedures for use in new or revised energy conservation standards and test procedures for consumer products and commercial/industrial equipment in Appendix A to Subpart C of Part 430, Title 10. While, nonbinding, the Department's procedures support predictability in the energy conservation standard and test procedure rulemaking process. AHRI has several suggestions to bring this same reliability and timeliness to certification, compliance, and enforcement (CCE) in 10 CFR Part 429. AHRI urges the Department consider issuing a proposal to seek stakeholder feedback on the establishment of a CCE process rule.

AHRI Certification Supports Regulators

Of the many products DOE seeks feedback on in this NOPR regarding certification, labeling, and enforcement, AHRI members manufacture Air Cleaners; Central Air Conditioners and Heat Pumps (CAC/HP); Pool Heaters; Computer Room Air Conditioners (CRAC); Direct Expansion-Dedicated Outdoor Air Systems (DX-DOAS); Air Cooled; Three-Phase, Small Commercial Air Conditioners and Heat Pumps with a Cooling Capacity of Less Than 65,000 Btu/h (3-ph Small CAC/HP) and Air-Cooled, Three-Phase, Variable Refrigerant Flow Air Conditioners and Heat Pumps with a Cooling Capacity of Less Than 65,000 Btu/h (3-ph Small VRF); Commercial Water Heating Equipment (CWH); Automatic Commercial Ice Makers (ACIM); Walk-In Coolers and Freezers (WICF); and Single Package Vertical Units (SPVU). AHRI also administers Certification Programs that test and certify the performance of 40 types of HVACR and water heating equipment. As an authorized third-party representative, on the manufacturer's behalf, AHRI submits required compliance certification reports and data to DOE for 18 products, on 25 templates.

Products that are certified through the AHRI Product Performance Certification Program are continuously tested, at the direction of AHRI, by an independent third–party laboratory, contracted by AHRI, to determine the product's ability to conform to one or more product rating standards or specifications. There are over 500 certification program participants and AHRI annually administers over 3,000 certification tests. The AHRI Directory is the trusted source for performance certified HVACR equipment and voluntary compliance supports DOE compliance.

To execute these robust programs, significant AHRI and member resources are allocated ensuring that DOE templates are translated seamlessly into AHRI Directory data inputs for accurate data collection. AHRI's data services team works to ensure timely and accurate

transmission of data to DOE. These efforts are carefully and intentionally managed at AHRI. AHRI also supports data transmission to the Environmental Protection Agency (EPA) EnergyStar program, the Consortium for Energy Efficiency (CEE) Directory, as well as state and foreign regulatory agencies.

Importance of Process and Timing of Certification and Enforcement

First, AHRI commends DOE on the care it has taken with proposed establishment and amendment of the certification provisions, labeling requirements, and enforcement provisions for the many products included in the scope of this rulemaking. DOE has authority to collect information relating to *energy efficiency* or *energy use* of covered products, it may only collect that information which is *necessary* to ensure compliance with EPCA's provisions.[3] We recognize DOE's efforts to be very thorough in its review of changes to test procedures and energy conservation standards and proposals.

The information must also be collected in a manner designed to minimize unnecessary burdens on manufacturers.[4] The only way for DOE to meet this statutory obligation is to limit the *energy efficiency or energy use* information required in certification reports to that which is truly necessary to determine compliance with the test procedure, labeling and energy efficiency standards. Anything beyond that falls outside of the information DOE is authorized to collect, and results in an undue burden on manufacturers. There is a real cost for manufacturers to vet and verify information that is unrelated to the covered product's compliance with energy conservation standards, which on its face fails 42 U.S.C. § 6296(d)'s requirement that DOE collect only necessary data in a manner designed to minimize unnecessary burdens on manufacturers.

In addition to burden related to entering and verifying data into certification reports, consideration also needs to be given to how and when templates are updated. Timing of template changes impacts not only manufacturers, but also AHRI with our robust certification program. AHRI has recommendations for timing related to the finalization of this rule and for the process of future certification and enforcement (C&E) rulemakings.

While AHRI's needs may be unique given the regular transmission of data to DOE, our experience informs these suggestions and we believe, a general review of the C&E process would help establish certainty and predictability for all stakeholders. AHRI requests that DOE initiate a rulemaking to develop procedures, interpretations, and policies for consideration of new or revised C&E rules for consumer products and certain commercial/industrial equipment. A "process rule" for certification and compliance is as important and necessary to manufacturers and certification bodies as the development of test procedures and energy conservation standards.

Regarding process, generally, stakeholders need C&E changes proposed more closely to the publication of the final rule and with appropriate time to implement template changes for compliance. This proposal includes several products where the trigger for necessary C&E

[3] 42 U.S.C. § 6296(d)
[4] *Id.*

changes was in the spring of 2022 – over 19 months ago. Though AHRI acknowledges that there is benefit for both DOE and stakeholders to see changes impacting several products in one package, C&E proposals issued more closely to final rules would be of greater value to the regulated community.

Timing to comply with a final standard is not always several years. Whether the result of a direct final rule, like Air Cleaners, or the unique statutory interpretation that provided DX-DOAS only 18 months to comply with first-time standards,[5] compliance is sometimes required quickly. Even when compliance follows the more typical 3-to-5-year timeline, those years are *necessary* for the transition to new test procedures and new standards. It is also necessary to have C&E rules and templates issued and finalized for manufacturers to collect necessary data reasonably and predictably. In the future, AHRI recommends DOE issue full draft templates, rather than just column headers and product group codes. An indication of new or modified information would also be helpful to assist stakeholders in our review of templates, or even column headers. In no case should stakeholders be required to presume what the compliance requirements are

For product and equipment with test procedure changes, compliance for manufacturers is required within 180 days of DOE issuing a final rule in the *Federal Register*.[6] Using the publication of the test procedure final rule as a trigger, AHRI recommends DOE publish any proposed C&E changes, and the accompanying to, within 30 days and the final C&E rule be published within 90 days. This would provide 30 days for stakeholders to provide feedback on the C&E proposal; 30 days for DOE to incorporate changes and pre-publish a C&E final rule; and 90 days for stakeholders to implement and comply with these changes.

As an example, CAC/HP: (1) have *millions* of listings; (2) transitioned to new metrics and new standards on January 1, 2023; (3) CACs are subject to regional standards enforcement procedures;[7] and (4) have reporting obligations for compliance with EPA ENERGY STAR and

[5] The DX-DOAS final rule for standards was effective January 1, 2023, and compliance with standards is May 1, 2024. (87 FR 63651). DX-DOAS were first added to ASHRAE 90.1-2016, citing AHRI Standard 920-2015, and setting minimum efficiency levels using the integrated seasonal moisture removal efficiency (ISMRE) metric for all DOAS classes and the integrated seasonal coefficient of performance (ISCOP) metric for air-source heat pump and water-source heat pump DX–DOAS classes. Unfortunately, the test procedure needed significant and immediate modifications to properly execute, which took several years. On February 4, 2020 AHRI released the 2020 edition, AHRI 920–2020), which addresses issues with the prior test procedure. Test procedure changes were so significant, new metrics, ISMRE2 and ISCOP2 were necessary. AHRI 920-2020 and standards levels consistent with ASHRAE 90.1-2016 were finally published as Addendum cv to ASHRAE 90.1-2022 in February 2023, just one month after the publication of the 2022 edition of 90.1. AHRI is pleased that the process is complete but dismayed the addendum publication delays prevented the energy conservation standards from being included in the print edition of 90-1-2022. AHRI worked hard with manufactures in 2021 to develop data for the crosswalk, worked with DOE. The proposal DOE made was consistent with the addenda, introduced days apart from the DOE standards proposal in February 2022. While DOE was originally triggered by 90.1-2016, then again by 90.1-2019, despite those editions of 90.1 still citing the fatally flawed 2015 edition of AHRI 920 and the old metrics. As a result of the complicated timing, DOE applied logic that shortened the mandated 3-year compliance (42 U.S.C. 6313(a)(6)(A)(ii)(I) and (a)(6)(D)) to only 18 months.

[6] 42 U.S.C. § 6293(c)(2)

[7] 10 CFR § 429.140

for tax credit provisions in section 25C of the Inflation Reduction Act (IRA) of 2022,[8] so changes to certification templates are particularly impactful. The current template, v5.3, published April 5, 2023, was immediately available for reporting voluntary fields. The use of template v5.3 is required to be used for submission to DOE of new basic model distribution in commerce by June 1, 2024.[9] The next annual reporting deadline, where all CAC/HP basic models need to be resubmitted to DOE, is July 1, 2024.[10] For AHRI to submit data to DOE, that template needs to be analyzed and programmed for both manufacturers to submit the data to the AHRI Directory and then for the data to be transmitted to DOE. AHRI notes that CEE fields added to facilitate DOE evaluation of qualification under the applicable CEE specifications are not included on proposed templates.[11] AHRI recommends DOE discuss any future need of these fields with CEE.

Necessary, and industry-supported, amendments to the CAC/HP test procedure final rule were published October 25, 2022 (October 2022 CAC/HP Final Rule), which defined "communicating variable-speed coil-only central air conditioner or heat pump." This is what trigged DOE to propose herein, modifications to the certification report to discern whether a variable speed coil-only rating is based on non-communicating or communicating control. Manufacturer compliance with the October 2022 CAC/HP Final Rule was required by April 23, 2023 – 180 days after the publication of the final test procedure. It certainly would have been helpful to DOE, manufacturers, and AHRI to have C&E requirements finalized prior to compliance. While CAC/HP is a particularly complex example of a regulated product, complexity in testing, standards, and certification, is increasing for many products.

Department of Energy regulations require certification reports filed for every basic model prior to distribution in commerce; annually after it has been initially certified; and when it is no longer available in commerce [report of discontinued status].[12] Annual certification requires mass uploads, and it takes weeks to upload certification data. This process, and system limitations, create onerous obstacles for third-party certification bodies that represent 90% of the regulated market. AHRI has long advocated for the elimination of the Annual Certification Requirements for covered products via notice and comment rulemaking. It is unnecessary and

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[8] CAC/HPs must meet or exceed the highest efficiency tier (not including any advanced tier) established by the Consortium for Energy Efficiency (CEE) that is in effect as of the beginning of the year in which the property is placed in service. The specification in force for 2023 has several categories and is summarized, here: https://cee1.my.salesforce.com/sfc/p/#1U0000011m3T/a/7V0000001wi4/BgrKebEJ7BC_9PsFIaO.zPDtibnB7M9aYVECEClqLHw.

[9] DOE Press Release for Revised CAC/HP templates, available, here: https://www.regulations.doe.gov/news/Revised_Templates_for_Central_Air_Conditioners_and_Heat_Pumps_Other_than_Multi-Split_Systems_Appendix_M1_v5.3_and_Multi-Split_System_Central_Air_Conditioners_and_Heat_Pumps_Appendix_M1_v5.5

[10] 10 CFR § 429.16

[11] CEE data fields included on the current template but not included on the draft template include:

- Energy Efficiency Ratio 2 (EER2) in Btu/W-h
- Coefficient of Performance (COP) at 5°F (Optional)
- Heating Capacity at 17°F in Btu/hr (Optional)
- Heating Capacity at 5°F in Btu/hr (Optional)
- Is the Basic Model Ducted or Non-Ducted?
- AHRI Certified Reference Number (if Applicable)

[12] 10 CFR § 429.12

therefore imparts burden without benefit. However, to avoid any additional complications, specific to this rulemaking, we urge DOE to finalize this rulemaking and publish templates no later than January 2, 2024. This would allow for stakeholders to have final templates 120 days prior to the spring 2024 first time compliance and annual reporting deadlines. Again, the regulated community needs time to incorporate template changes into the AHRI Directory system and for manufacturers to input data. In the future, the rulemaking process may be streamlined if certification, reporting, and labeling proposals are made close to a standards or test procedure final rule.

In future rules, special consideration needs to be given where publication of proposed and final C&E rule is close to the first time or annual certification requirement for the products or equipment. AHRI is concerned that template releases for equipment with first time compliance deadlines or annual reporting requirements in the spring of 2024,[13] may be in jeopardy resulting from the timing of this proposed rule, and ultimately the final rule publications.

Submission of DOE's CCMS templates are not optional; they are required by regulation.[14] AHRI also notes that triennial compliance with the Paperwork Reduction Act (PRA)[15] to templates using OMB Control Number 1910-1400 expires on September 30, 2024. Submission of new forms for OMB approval have only changed the version number, OMB control number and OMB form expiration date. This change made to every template simultaneously causes substantial burden for certification bodies. If the PRA does require each individual template to be cleared by OMB, AHRI suggests that templates updated in this rulemaking be submitted to OMB. This would reduce future template changes that would just update the version number. DOE is obligated to consider this and any other recommendations that reduce the burden of compliance.

Lastly, where annual reporting is concerned, in no case should the annual reporting be required within 120 days of publication of a new C&E rule where templates are revised or impacted. If the C&E rule cannot be finalized more than 120 days in advance of the annual reporting deadline, the deadline for that year should shift to 120 days after publication of the final C&E rule in the *Federal Register*. Requiring annual reporting for any templates revised in closer proximity to the annual reporting deadline is burdensome to the regulated community.

Responses to DOE proposed updates to certification reporting requirements

AHRI has specific feedback on DOE proposals for CAC/HP; CRAC; DX-DOAS; 3-ph Small CAC/HP and 3-ph Small VRF; CWH; ACIM; WICF; and SPVU.

Central Air Conditioners and Heat Pumps

(1) AHRI supports DOE's proposal to require reporting of whether a variable speed coil-only rating is based on non-communicating or communicating control.

[13] First time DX-DOAS compliance is required on May 1, 2024. New standards, which more than doubles the scope of regulated equipment is required for CRAC on May 28, 2024.
[14] 10 CFR § 429.12(h) Method of submission
[15] 5 CFR § 1320.5

(2) AHRI supports DOE's proposal to require reporting of whether a CAC/HP system varies blower speeds with outdoor air conditions. The proposed new column, "Does the System Vary Blower Speeds with Outdoor Air Conditions?" is appropriate. AHRI recommends response be required for Blower Coil Systems only, and only if applicable. A blank field should be permissible for all other systems. The default should be "No."

(3) AHRI understands DOE's proposal to correct the sampling provisions for CAC/HPs to reference appendix A instead of appendix D, to *only* be a reference change. If that is the case, AHRI is supportive of the proposed change.

(4) Should DOE adopt AHRI's specific recommendation in (2), and general recommendations regarding timing and process, above, AHRI would not expect significant additional burden or cost associated with amendments proposed for CAC/HPs for manufacturers. AHRI notes that implementing amendments to templates does come at cost and burden to third-party certification bodies – one we willingly bear for the benefit of manufacturers, regulators, and users. We would appreciate a more streamlined and predictable process, as recommended herein.

Computer Room Air Conditioners

(30) AHRI is supportive of CRACs certification reporting requirements with amended energy conservation standards established in a final rule published in the *Federal Register* on June 2, 2023 (88 FR 36392). AHRI notes that compliance with the amended standards established for computer room air conditioners in the final rule is required on and after May 28, 2024. The final rule added 66 equipment class categories, bringing the total number of federally regulated equipment classes to 120. Accordingly, DOE has proposed 120 product group codes; however, AHRI suggests that the indication upflow or downflow configuration, for applicable products, would be better supplied in a column. Reducing the number of product group codes would reduce the burden of AHRI programming and manufacturers entering data.

Manufacturers would appreciate the finalization of this C&E rule and final templates to be issued no later than January 2, 2024, to allow for appropriate time to comply for newly scoped-in equipment classes. AHRI supports DOE's proposal to require the reporting of net sensible cooling capacity in Btu/h, the net total cooling capacity in Btu/h, whether the basic model is split system or single-package, the configuration (e.g., downflow, upflow ducted, upflow non-ducted, horizontal flow, ceiling-mounted ducted, ceiling-mounted non-ducted), fluid economizer presence (or lack thereof), condenser heat rejection medium (air, water, or glycol-cooled), NSenCOP, rated airflow in SCFM, and the refrigerant used to determine the represented values.

(31) AHRI supports DOE's proposed supplemental testing instructions requirements for CRACs when certifying compliance with NSenCOP standards.

(32) While not explicitly stated in the regulation, AHRI Certification for CRAC is for matched split-systems. We therefore do not object to DOE's proposal to require the reporting of both indoor unit and outdoor unit individual model numbers for split-system CRACs.

(33) AHRI does not object to DOE's proposal to specify a tolerance of 5 percent for CRAC verification tests for NSenCOP.

(34) AHRI believes DOE's estimate of certification reporting costs of the amendments proposed for CRACs is understated. The scope of regulated equipment more than doubled with amended energy conservation standards established in a final rule published in the *Federal Register* on June 2, 2023 (88 FR 36392). Even with the proposed adoption of AEDMs, which AHRI support, there is a substantial increase in burden that should be acknowledged.

Direct Expansion-Dedicated Outdoor Air Systems

(35) While AHRI is supportive of reporting of ISMRE2 and ISCOP2 to certify compliance with the standards applicable to DX–DOASes, AHRI requests DOE to consider exercising its enforcement discretion to delay enforcement for R-410A models manufactured on or after May 1, 2024, until January 1, 2025. The Environmental Protection Agency (EPA) recently finalized Technology Transitions rule, prohibiting the manufacture, import, or installation of residential and light commercial air conditioning and heat pumps, including DX-DOAS, using refrigerant with a global warming potential (GWPs) of 700 or greater on or after January 1, 2025.[16] AHRI does not expect any R-410A packaged equipment to be installed after that date. DX-DOAS are tested in the same chambers as many HVAC equipment, all of which are undergoing necessary testing with new low-GWP refrigerants. Occupying test chambers with R-410A equipment that will only be sold for a few months is burdensome and unnecessary. Any low-GWP DX-DOAS equipment manufacturer and offered for sale after May 1, 2024 should be listed on time.

Third-party test labs have been significantly delayed making necessary upgrades that allow for testing of DX-DOAS over ten tons with energy recovery ventilators using "Option 1," or direct testing. Steam generators are required in the psychrometric chambers to test the DX-DOAS's moisture removal capability. AHRI has been assured that the upgrades to the larger test chamber (that can accommodate units over ten tons) will be made by the end of the year; however, this upgrade was originally slated for the beginning of 2023. Manufacturer testing has been delayed as a result. Prioritizing the low-GWP DX-DOAS equipment testing would be the best use of limited testing resources.

[16] EPA Final Rule regarding the Phasedown of Hydrofluorocarbons: Restrictions on the Use of Certain Hydrofluorocarbons Under the American Innovation and Manufacturing Act of 2020. October 24, 2023. 88 FR 73098

AHRI supports DOE's proposals regarding reporting rated moisture removal capacity and rated supply airflow rate.

(36) AHRI does not object to DOE's proposal to include reporting requirements for DX–DOASes with ventilation energy recovery systems.

(37) DOE's proposal to require supplemental testing instruction file contents for DX–DOASes is reasonable.

(38) Again, as discussed in (34) for CRAC, above, AHRI considers the burden of new reporting requirements for DX–DOASes to be necessary but understated.

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

(39) AHRI supports DOE's proposal to require the reporting of new metrics, such as SEER2 and HSPF2.

(40) AHRI does not object to DOE's proposal to correct the sampling provisions for three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF to reference appendix A.

(41) AHRI has no further comments regarding costs of the amendments proposed for three-phase, less than 65,000 Btu/h ACUACs and ACUHPs and three-phase, less than 65,000 Btu/h VRF.

Commercial Water Heating Equipment

(42) AHRI notes that commercial electric instantaneous water heaters are not within the scope of the AHRI Commercial Water Heater (CWH) Certification Program. As the proposal to include reporting for commercial electric instantaneous water heaters (i.e., electric instantaneous water heaters with a rated input both greater than 12 kW and not less than 4,000 Btu/h per gallon of stored water, not including residential-duty commercial) is based on the May 19, 2022 proposed rule, it is not clear when compliance would be required. AHRI notes that the final rule was published on October 6, 2023, with compliance to the amended standards required October 6, 2026, however, DOE also states that compliance for commercial electric instantaneous water heaters has been required since January 1, 1994. AHRI requests that DOE clarify when certification will be required for this equipment.

AHRI opposes reporting of thermal efficiency for commercial electric instantaneous water heaters of all storage volumes. Within the DOE test procedure for commercial electric instantaneous water heaters the thermal efficiency is assumed to be 98% and does not include a method for measuring thermal efficiency. Thermal efficiency is not reported for commercial electric storage water heaters, and therefore, it should not

be required for other commercial electric equipment. AHRI recommends removing the requirement to report thermal efficiency for commercial electric instantaneous water heaters in reporting template.

AHRI notes that electric instantaneous water heaters with storage volume less than 10 gallons are not subject to testing and should therefore be excluded from certification and reporting requirements.

(43) AHRI is opposed to DOE's proposal to add a requirement for the reporting of rated input for commercial electric storage water heaters. Input rate does not impact the efficiency rating, but it has the potential to increase the number of basic models by a factor of at least 10.

Commercial electric storage water heaters greater than or equal to 140 gallons are not subject to standards, but rather confirmation they meet the design requirement of jacket insulation that is greater than or equal to R-12.5. There is also no standby loss testing required for this equipment.[17] Details regarding the input capacity are not needed as this is an assigned rating, rather than a tested value. Rather than reporting an input capacity number, could the field response be Y/N to indicate equipment class?

(44) AHRI has no further comments regarding costs of the amendments proposed for commercial electric instantaneous water heaters and commercial electric storage water heaters.

Automatic Commercial Ice Makers

(45) AHRI supports DOE's proposal to replace the terms "maximum energy use" and "maximum condenser water use" with "energy use" and "condenser water use," respectively, for ACIMs.

(46) AHRI has questions regarding DOE's proposal to establish rounding requirements for ACIMs. Specifically, have draft template column headers and product codes has been updated to include the new smaller size categories? For example, directions draft template for the Harvest Rate column, are to "Enter the Harvest Rate in pounds of ice per 24 hours in the cells below. This should be a decimal number greater than zero." For ACIMs with a harvest rates less than or equal to 50 lbs/24 hr should report harvest rate in 0.1 lb/24, but larger equipment reports to the nearest 1 lb/24 hr

(47) AHRI has no comments currently regarding DOE's proposal to correct the sampling provisions for ACIMs.

(48) AHRI notes there is cost associated with certification reporting amendments proposed for ACIMs. Products in the new smaller harvest rate category, below 50 lbs/24

[17] Water heaters and hot water supply boilers having more than 140 gallons of storage capacity need not meet the standby loss requirement if: (1) The tank surface area is thermally insulated to R–12.5 or more; (2) a standing pilot light is not used; and (3) for gas or oil-fired storage water heaters, they have a fire damper or fan-assisted combustion.

hr, are not in the AHRI ACIM Certification Program, so there would be a burden for those manufacturers to report to DOE.

Walk-In Coolers and Freezers

(49) AHRI has no feedback on DOE's proposal to require the reporting of whether a basic model meets the definition of a CO_2 unit cooler.

(50) AHRI has no feedback on DOE's proposal to require the reporting of whether a basic model meets the definition of a detachable single-packaged dedicated system or an attached split system.

(51) AHRI has no feedback on DOE's proposal to require the reporting of whether a dedicated condensing system basic model includes flooded head pressure controls.

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

(53) AHRI does not oppose DOE's proposal to require, if necessary to run a valid test, supplemental testing information as a PDF file at the time of certification.

(54) AHRI has no feedback on DOE's proposal to require the reporting of the conditions at which the controls activate the ASH wire for walk-in doors with ASH controls.

(55) AHRI has no feedback regarding proposed additional certification reporting requirements for walk-in doors and refrigeration systems.

(56) AHRI has no feedback regarding the certification reporting costs of the amendments proposed for walk-ins.

(57) AHRI has no feedback on DOE's proposal to require that date of manufacture be included on a panel nameplate. AHRI opposes DOE's proposal to require CO_2 unit coolers be labeled with the statement "Only CO_2 is approved as a refrigerant for this system." Refrigerant information is required to be included on the equipment nameplate per the equipment's safety standard, ISO 60335-2-89. Including further labeling with the same information would be duplicative and burdensome to include. Any addition of cost without benefit is unnecessary.

Single Package Vertical Units

(70) AHRI does not oppose DOE's proposed certification requirements for SPVUs of all rated capacities when certifying compliance with IEER standards. AHRI notes that the "Action" field has been inadvertently omitted from the draft template. This field is standard for DOE templates and needs to be included in the final version.

(71) AHRI understands proposed additional certification requirements for SPVUs with a cooling capacity less than 65,000 Btu/h are necessary, based on definitions adopted in test procedure final rule published in the *Federal Register* on December 7, 2022 (December 2022 SPVU TP final rule), though we opposed these additional categories.

(72) AHRI supports DOE's proposed supplemental testing instructions requirements for SPVUs when certifying compliance with IEER standards, should such standards be adopted.

(73) AHRI supports DOE's proposal to specify a tolerance of 10 percent for SPVU verification tests for IEER.

(74) While manufacturers of SPVUs are already submitting certification reports to DOE, the reclassification of many SPVUs to residential CAC/HP does have a financial impact. This equipment had been tested, rated, marketed, sold, and installed as SPVU. Manufacturers did not have testing to a different standard readily available and proposed amendments would impose additional costs for manufacturers. Reclassification of SPVUs as CAC/HP, long opposed by AHRI, would appreciably change reporting burden or hours as compared to what SPVU manufacturers are currently doing.[18,19,20]

Administrative Recommendation

10 CFR 429.4(c) includes AHRI contact information and a list of relevant test procedures.[21] AHRI requests DOE update the address to our current location: 2311 Wilson Blvd.

[18] AHRI Comments in Response to Department of Energy's Notice of Proposed Rulemaking Regarding Test Procedures for Single Package Vertical Units, March 15, 2022. EERE-2017-BT-STD-0020.
[19] AHRI Comments in Response to Department of Energy's Proposal and Notice of Proposed Determination Regarding Energy Conservation Standard for Single Package Vertical Units, February 6, 2023. EERE–2019–BT–STD–0033.
[20] AHRI Comments to DOE Notice of Availability of ASHRAE 90.1-2013 Equipment Efficiencies, May 12, 2014. EERE-2014-BT-STD-0015-0024.
[21] (1) AHRI Standard 210/240–2023, ("AHRI 210/240–2023"), 2023 Standard for Performance Rating of Unitary Air-conditioning & Air-source Heat Pump Equipment, copyright 2020; IBR approved for § 429.67.
(2) ANSI/AHRI Standard 340/360–2007, ("AHRI–340/360–2007"), 2007 Standard for Performance Rating of Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment, with Addenda 1 and 2, ANSI approved October 27, 2011, IBR approved for § 429.43.
(3) AHRI Standard 390 (I–P)–2021, ("AHRI 390–2021"), 2021 Standard for Performance Rating of Single Package Vertical Air-conditioners And Heat Pumps, IBR approved for § 429.134.
(4) AHRI Standard 1230(I–P) ("AHRI 1230–2021"), 2021 Standard for Performance Rating of Variable Refrigerant Flow (VRF) Multi-Split Air-Conditioning and Heat Pump Equipment, copyright 2021; IBR approved for §§ 429.43; 429.134.
(5) AHRI Standard 1360–2022 (I–P) ("AHRI 1360–2022"), 2022 Standard for Performance Rating of Computer and Data Processing Room Air Conditioners, copyright 2022; IBR approved for § 429.43.
(6) AHRI Standard 1500–2015, ("ANSI/AHRI Standard 1500–2015"), "2015 Standard for Performance Rating of Commercial Space Heating Boilers," ANSI approved November 28, 2014: Figure C9, Suggested Piping Arrangement for Hot Water Boilers; IBR approved for § 429.60.

Suite 400, Arlington VA 22201. Our phone number and web address remain the same as currently listed in the CFR.

If you have any questions regarding this submission, please do not hesitate to contact me.

Sincerely,

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