AIR-CONDITIONING, HEATING, & REFRIGERATION INSTITUTE
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January 27, 2020

Colorado Department of Public Health and Environment
Air Pollution Control Division
4300 Cherry Creek Drive South
Denver, CO 80246
(Submitted via email to cdphe.commentsapcd@state.co.us)

Re: AHRI Comments to Colorado: January 23, 2020 Pre-rulemaking Stakeholder Meeting Regarding Greenhouse Gas Reporting and Hydrofluorocarbons Emissions

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Dear Division staff,

The Air Conditioning Heating and Refrigeration Institute (AHRI) submits this letter in response to the stakeholder meeting held on January 23, 2020 regarding the Colorado Air Pollution Control Division's (the Division) contemplation of a potential greenhouse gas emissions reporting rule and potential greenhouse gas emission reduction strategies addressing hydrofluorocarbon (HFC) emissions.

AHRI represents over 300 air-conditioning, heating, and refrigeration equipment manufacturers. In North America, the annual output of the HVACR and water heating industry is worth more than $44 billion. In the United States, the industry supports 1.3 million jobs and $256 billion in economic activity annually.

AHRI has been working for more than a decade to support regulations to reduce the consumption and production of HFCs. Our members strongly supported the agreement to amend the Montreal Protocol on Substances that Deplete the Ozone Layer to phase down HFC production and consumption as a proven, predictable, and practical approach. We demonstrated that support in our work with state regulators and environmental non-governmental organizations (E-NGOs). Our industry has worked closely with governments, both foreign and domestic, to prepare and successfully execute the safe, orderly, and economical transition to low-GWP refrigerants. We look forward to collaborating with the Division as the regulation progresses and hope that our comments will be helpful.

We are working closely with the Climate Alliance states that have announced an intent to regulate HFCs in the United States to help states provinces adopt and implement laws and regulations consistently across jurisdictions. We recognize that regulations must meet greenhouse gas reduction objectives while still providing critical benefits like preserving food and medicine and, in some cases, life-saving facility cooling. As a matter of general policy, AHRI would prefer a federal initiative to address low-GWP refrigerants to avoid a patchwork of regulations, and AHRI is actively pursuing federal legislation to achieve a national HFC phase

down. We recognize Colorado's consideration to address this important issue and appreciate the opportunity to provide feedback early in the process.

As Colorado drafts regulatory language, AHRI would like to provide recommendations to harmonize regulations with the intent of the original federal Environmental Protection Agency (EPA) Significant New Alternative Policy (SNAP) rules and share best practices that are intended to achieve a workable, enforceable framework to provide certainty, consistency, and fairness for industry.

These comments include AHRI's recommendations on the following topics:

1. We strongly request that Colorado not limit the use of *Completeness Letters* through development of new HFC regulations
2. We request that Colorado building codes adopt ASHRAE 15 (2019) and UL 60335-2-40 to allow for the installation of equipment using low-GWP alternatives;
3. Administrative requirements (e.g. disclosure and labeling);
4. Definitions;
5. A formal exemption process;
6. Technician training; and
7. Sufficient compliance time.

EPA *Completeness Letters* for some medium-GWP refrigerants

The EPA backlog of Significant New Alternative Policy (SNAP) Program applications for new refrigerant alternative listing process includes substitutes that are needed to comply with SNAP Rules 20 and 21. Specifically some medium global warming potential (GWP) commercial refrigeration substitutes are not currently, and may never be, listed as acceptable in the *Federal Register*. Some chiller refrigerant substitutes are also not yet listed as acceptable under the SNAP program. If the Division adopts SNAP Rules 20 and 21, high-GWP refrigerants may not be used in these new equipment types, and medium GWP substitutes are not yet federally approved for all commercial refrigeration equipment types. In the face of this dilemma, AHRI proposes a simple fix, relying on existing federal procedures.

90 days after the receipt of an application for an alternative, after the Environmental Protection Agency (EPA or the Agency) has reviewed the available data, the Agency sends the applicant correspondence stating the Agency either has sufficient information to make an acceptability determination and the application is complete or that specific additional information is needed by the Agency to make a determination and the application is incomplete.

A letter stating that the submission is complete (C*ompleteness Letter)* often includes language that allows the submitted substitute to be sold into interstate commerce 90 days after the letter is written until a final determination is made. i.e., *"…90 days from the date of this letter, this product may be entered into interstate commerce."*

Although this is unusual for this industry, AHRI anticipates that for a discrete number of applications, reliance on the allowance in the EPA *Completeness Letter* to *enter products into*

interstate commerce may be necessary for an original equipment manufacturer (OEM) to legally design and use products for which a determination of acceptability is not yet complete.

We strongly request that Colorado not limit the use of *Completeness Letters* through development of new HFC regulations.

The California Air Resources Board (CARB) accepted our proposal to use *Completeness Letters* for several mid-range-GWP alternatives that are not, and may never be, on the EPA's list of approved substitutes. The chemical producers provided their *Completeness Letters* to AHRI and are well-aware of this effort in California. Please see attached AHRI factsheet regarding completeness letters for commercial refrigeration. (Exhibit 1)

Building codes must be updated to enable low-GWP alternatives.

Some low-GWP refrigerants have different flammability and toxicity properties than currently used products. For manufacturers to design, test, and certify products with low-GWP alternative refrigerants, updated safety standards must be adopted into state building codes. For example, the model building code has not yet been updated to allow for the installation of equipment containing low flammability or ASHRAE classification A2L refrigerants. In order for some high-pressure chillers to comply with SNAP Rule 21, A2L refrigerants provide the only viable refrigerant option. ASHRAE Standard 15 and UL 60335-2-40 are industry safety standards that provide the requisite specifications to design and install safe, compliant products. These standards must be adopted into Colorado building codes for chiller manufacturers to fully comply with a regulation based on EPA SNAP Rule 21.

Colorado has adopted the 2018 International Mechanical Code for state facilities, which enables the new refrigerants in chillers in machine rooms and outdoor environments, but does not reference the 2019 edition of UL 60335-2-40, which is required for the new refrigerants in those chillers operating in occupied spaces. Consequently, in order to comply with EPA SNAP 21, all projects involving these chillers in occupied spaces would have to go through alternative means and methods approval.

AHRI has developed an expertise in the codes and standards amendments required to successfully install low-GWP refrigerant. **AHRI requests the opportunity to have a discussion with the Division staff and government code officials on the code changes needed for compliance with the SNAP Rules 20 and 21.**

Administrative requirements should not be overly burdensome

States are considering a range of administrative requirements related to disclosure to end-users and to regulatory agencies. Due to differences in products that use HFCs, administrative requirements should be flexible to allow for the implementation of practical solutions, especially

to account for different supply chains of consumer products and residential, commercial, and industrial products that are required to be installed and maintained by professional technicians.

AHRI requests the flexibility in disclosure requirements and express allowance of internet or electronic disclosures in lieu of physical labels. Industry experience demonstrates that physical labels are not an effective means of communicating compliance with consumers or regulators because HVACR equipment is rarely on display rather, it is stored in a warehouse until after it is contracted for, sold, and installed. Internet disclosures are acceptable and a more cost effective and practical means of communicating important compliance, especially for equipment that is installed in place such as commercial refrigeration.

The AHRI Directory offers an existing accessible database of readily available information on a vast array of regulated equipment. Currently, this centralized database provides contractors, regulators, and consumers with product information, including model-specific certificates and EnergyGuide labels, though it is important to note that not all AHRI member products are represented in the AHRI Directory. Under Federal Trade Commission rules governing the familiar yellow Energy Guide labels, online information by manufacturers satisfies the disclosure obligation. Equipment requiring refrigerant disclosures could be made the same way.

The AHRI Directory may be of use to regulators as states promulgate HFC rulemakings, particularly as a means of easily accessing information on the many millions of models on the market. We extend the offer to host a webinar to introduce Colorado staff to the AHRI Directory and showcase the capabilities that could be adapted to help manufacturers comply with internet disclosures as we have done for other Climate Alliance states considering these requirements. AHRI encourages explicit allowance of the use of an online or written disclosure to ease the burden on manufacturers and to allow for a more effective means of communicating compliance with consumers and regulators.

An additional consideration regarding disclosure requirements is the need for concise, generic language. As the Division is aware, an important policy consideration in implementing state regulation is the additional burden that a state-by-state patchwork of regulations can impose on a line of products that are marketed and sold nationally. A practical regulation would align as much as possible with other states' requirements to reduce added costs to Colorado consumers for Colorado-specific products. As such, we would encourage the Division to adopt generic language for any disclosure provisions. Attached as Exhibit 2 is are AHRI recommendations to the Climate Alliance regarding administrative controls for HFCs, including a proposed language for a disclosure statement.

Regarding disclosure to the Division, several other states have established regulations including Washington State and California. Washington State requires reporting of refrigerant used by product type while California requires manufacturers to keep records including documenting the refrigerant used and retaining that information for five years for disclosure upon request. AHRI would like to point out that neither control measure is particularly practical for residential, commercial, and industrial HVACR equipment. AHRI urges the Division to consider the following complexities to such disclosure requirements:

- Many products are sold through a lengthy supply chain to distributors that operate in multi-state geographic regions, who then sell a product to a contractor, who sells it to an end-user or installs the equipment. This complex supply chain makes recordkeeping challenging or even impossible. Consequently, manufacturers may not have records that include information about the end-user, such as the name and address of the purchaser or the date of sale.
- Equipment is frequently sold in parts or components. These components may not individually contain any refrigerant. Manufacturers of these components may not know what refrigerant will ultimately be used rendering compliance untenable.
- Sales disclosures, including customer lists, market shares, and product selections are important proprietary business data. For example, the U.S. Department of Justice (DOJ) discourages the disclosure of any market data or sales information that is not an aggregation of more than five market players. This also comes with a risk of public disclosure that could result in anticompetitive liabilities, contrary to the policies of the DOJ.

AHRI strongly requests flexibility in disclosure requirements including an express allowance of the use of a public database as a means for compliance and express allowance of internet or electronic disclosures in lieu of physical labels.

Definitions to consider

AHRI recommends use of the following definitions. These proposals are largely consistent with the EPA's SNAP 20 & 21 regulations. AHRI's experience with these regulations suggests that the terms "new equipment," "nominal compressor capacity," and "reclaim" have multiple interpretations relating to the commercial refrigeration sector. To prevent potential ambiguities, AHRI proposes the following definitions:

"New Refrigeration Equipment" means

1. Any refrigeration equipment system, manufactured after the effective date of this regulation, that is first installed for an intended purpose using new or used components; or
    a. Additions to existing equipment such that they increase the total nominal compressor capacity of a system after the date at which this sub article becomes effective;
2. Any refrigeration equipment that is modified such that it is:
    a. Modified to increase the total nominal compressor capacity of a system after the date at which this sub article becomes effective; or
    b. Replaced or cumulatively replaced after the date at which this sub article becomes effective, such that the capital cost of subsequent service, repair or replacement would exceed 50 percent of the capital cost of replacing the entire refrigeration system based on quoted system replacement cost.

"Nominal Compressor Capacity" means the capacity of the system's compressor(s) based on published ratings in accordance with a recognized standard such as AHRI Standard 540.

"Reclaim" means to reprocess recovered refrigerant to all of the specifications in appendix A of this subpart (based on AHRI Standard 700-2016 or the most recent subsequent version, Specifications for Refrigerants) that are applicable to that refrigerant and to verify that the refrigerant meets these specifications using the analytical methodology prescribed in that standard.

A Formal Exemption Process

AHRI requests the inclusion of a process to allow for potentially necessary exemptions that may come to light in the future largely for smaller manufacturers that make unique or niche products (generally non-AHRI member products.) A good model for this framework is Canada's "essential purpose" permit option included in the Ozone-depleting Substances and Halocarbons Alternatives Regulations (ODSHAR). Low-GWP alternatives and the products that use them are complex. Manufacturers are innovating and developing new products and technologies for a variety of vital applications like commercial refrigeration. As new uses and technologies come onto the market and as innovation continues, there may be a need to exempt specific products for certain applications. In the ODSHAR, the exemption permit clause is intended to allow a person to import, manufacture, use, or sell a substance or product designed to contain a substance if "it will be used for an essential purpose" and a permit is specifically issued. Environment and Climate Change Canada (ECCC) defines "essential purpose" as a purpose requiring the use of a substance or a product containing or designed to contain a substance, when that use is necessary for the health and safety or the good functioning of society, encompassing its cultural and intellectual aspects, and when there are no technically or economically feasible alternatives to that use that are acceptable from the standpoint of the environment and of health.

The ODSHAR essential purpose exemption and definition clause can be reviewed at Part 5 – s.66 (1) and (2). The permitting process is still being finalized by ECCC. We encourage Colorado to work with ECCC directly to learn more about the "essential purpose" permitting avenue.[1]

Reclaim provisions support emissions reductions

AHRI strongly supports measures to reduce emissions from leaking equipment and proper collection during servicing, at end-of-life, and the re-use of that refrigerant. This has proven to be one of the most challenging issues to address around the world.

[1] ECCC's Halocarbons Management Team at ec.gestionhalocarbures-halocarbonsmanagement.ec@canada.ca.

To support the important goals of emissions reductions, AHRI strongly suggests that the Division encourage the use of reclaimed refrigerants through its HFC regulations. Creating demand for reclaimed refrigerant encourages the proper collection of refrigerant during maintenance and at end-of-life of the equipment. We recommend taking affirmative steps to promote reclamation by requiring the use of reclaimed refrigerant in state procurement processes. A strategy that promotes the recovery, reclamation and re-use of refrigerants directly achieves Colorado's goal of reducing HFC emissions by eliminating or significantly reducing the need to service existing systems with newly manufactured refrigerant.

Technician training

Training and servicing requirements for technicians will be important considerations for future regulations. AHRI suggests that the Division consider including a requirement that technicians have refresher training on some frequency as the transition to lower-GWP refrigerants will require new uses of different American Society of Heating and Refrigeration Engineers (ASHRAE) refrigerant safety classifications than have been historically used.

Thank you for providing stakeholders the opportunity to give feedback and your work to engage with other Climate Alliance states to ensure a harmonized and practical regulation. We appreciate this opportunity to comment and look forward to reviewing the draft rule language. If you have any questions regarding this submission, please do not hesitate to contact me.

Sincerely,

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Exhibits:

1. Completeness Letter Fact Sheet
2. AHRI Recommendations to Climate Alliance for HFC Administrative Requirements