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Overview of Regulatory Actions Influencing the Commercial Refrigeration Industry

Overview

Every six years the Department of Energy (DOE) reviews the conservation standards which impact Hussmann products. Currently, display cases are manufactured to be compliant with the March 2017 DOE compliance date. Walk-in cooler/freezer components (WICF) have compliance dates of June 2017 for doors and 2020 for refrigeration. Hussmann and CRD WICF doors manufactured today are compliant with the most recent federal standards (June 2017). Hussmann is currently testing and certifying WICF refrigeration systems, to ensure the systems will be compliant by the 2020 dates.

Covered products compliant with DOE regulations can be found in the US DOE compliance certification database at: https://www.regulations.doe.gov/compliance-certification-database.

EPA REFRIGERANT REGULATIONS

U.S. EPA Significant New Alternatives Policy (SNAP) Rule 20 was partially vacated by the U.S. Court of Appeals for the D.C. Circuit and the U.S. Supreme Court declined to take up the appeal. On April 5, 2019, the D.C. Circuit court rendered judgement further narrowing the decision on SNAP 20. The EPA is working on a proposed rule in response to the court's decision on SNAP Rule 20. EPA has not yet determined how they plan to revise the program.

U.S. CLIMATE ALLIANCE

The U.S. Climate Alliance is a bipartisan coalition of governors committed to reducing greenhouse gas emissions consistent with the goals of the Paris Agreement—the global agreement dealing with greenhouse gas emissions mitigation. In response to the U.S. federal government's decision to withdraw the United States from the Paris Agreement, Governors Andrew Cuomo (NY), Jay Inslee (WA), and Jerry Brown (CA) launched the United States Climate Alliance with the understanding that coordinated state action can ensure that the United States continues to contribute to the global effort to address climate change. Currently 24 states and Puerto Rico have joined the Alliance and the list continues to grow.

Each Member State commits to:

- Implement policies that advance the goals of the Paris Agreement, aiming to reduce greenhouse gas emissions by at least 26-28 percent below 2005 levels by 2025
- Track and report progress to the global community in appropriate settings, including when the world convenes to take stock of the Paris Agreement
- Accelerate new and existing policies to reduce carbon pollution and promote clean energy deployment at the state and federal level

For a list of the U.S. Climate Alliance participating states, go to https://www.usclimatealliance.org.

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CALIFORNIA REFRIGERANT REGULATIONS

California, through laws enacted by its legislature, is required to reduce HFC emissions 40 percent below 2013 levels by 2030. To accomplish the emission reduction requirement, California's Air Resources Board (CARB) has created a first round of regulations that mirror the EPA's SNAP rule 20, which prohibits higher-GWP HFC refrigerants in commercial refrigeration applications. *See the table on page 4 for a summary of the effect to the most widely used refrigerants.*

Refrigerants with a Global Warming Potential (GWP) greater than 150

As part of their Short-Lived Climate Pollutants (SLCP) reduction program, CARB has publicly stated that they are planning a second phase of regulations that will also affect HFC refrigerants used in commercial refrigeration and air-conditioning.

CARB has proposed a prohibition on new commercial refrigeration equipment containing more than 50 lbs. of refrigerant using a gas with a GWP of greater than 150, starting **January 1, 2022**. In this scenario, new systems with less than 50 lbs. would still be able to use refrigerants like R-448A and R-449A.

The proposal also states that new A/C equipment will be prohibited from using any refrigerant with a GWP greater than 750, starting **January 1, 2023**.

Additionally, CARB is also considering banning sales of refrigerants with "very-high GWPs" effective **January 1, 2022**. The original proposal for the cutoff line for what will be prohibited is a GWP > 1500, but CARB is still considering this limit. Recycled/reclaimed refrigerants above the GWP limit will still be allowed, to encourage better recovery and recycling.

AHRI, Hussmann, other equipment manufacturers, and some retailers are pushing CARB to consider higher charge limits for refrigerants greater than 150 GWP. CARB's board is expected to make decision on these GWP limits in refrigeration and A/C equipment in **May 2020**.

My customers don't have any stores in California, so why should I care?

The reason is the U.S. Climate Alliance. Other member states have begun enacting refrigerant regulations that are the same as California's first phase, described above. Washington state and Vermont have already done so, and New York, Maryland, and Connecticut have announced commitments to adopt similar regulations.

CANADA REFRIGERANT REGULATIONS

The Canadian government has adopted the Kigali Amendment to the Montreal Protocol, which sets targets for the phase down of HFCs for all countries through the year 2047. To accomplish this, Canada will do the following:

- Control the amount of HFCs available for use through the phase-down of bulk HFCs
- Introduce controls on specific products containing HFCs, including air-conditioning and refrigeration equipment, foams and aerosols

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Specific to the controls on HFCs used in commercial refrigeration equipment, the following restrictions will begin in Canada in January 2020.

Application	Supermarket (Racks & Protocol)	Remote Condensing Units	Stand-Alone (Self-Contained) Med Temp	Stand-Alone (Self-Contained) Low Temp
Compliance Date*	1/1/2020	1/1/2020	1/1/2020	1/1/2020
Key Prohibited Refrigerants	Any HFC with GWP > 2,200	Any HFC with GWP > 2,200	Any HFC with GWP > 1,400	Any HFC with GWP > 1,500
Key Acceptable Refrigerants	R-407A/F, R-448A, R-449A, R-744 (CO2)	R-134a, R-407A/F, R-448A, R-449A	R-290, R-744, R-513A, R-450A, R-448A, R-449A	R-290, R-744, R-448A, R-449A

**The compliance date is the date the equipment is manufactured or in some cases imported.*

The IEC just approved an increase in the charge limit for propane (R-290) from 150 to 500 grams. How does this affect you?

The standard revision allowing up to 500 grams of R-290 is in the international version of the equipment safety standard for commercial refrigerators, IEC 60335-2-89. The North American versions of the standard (UL and CSA) will go through a revision process of their own starting later in 2019. A working group composed of U.S. and Canadian experts will make harmonized changes to their standards based on what is best for North America. This may mean that a charge limit of less than 500 grams for R-290 is approved, or that it is only allowed in certain types of equipment, but we will have to wait and see. That work will likely take one and half to two years to complete.

Europe, on the other hand, will likely adopt the IEC version of the standard with the 500-gram limit for R-290 starting sometime in 2020.

Hussmann is aggressively taking steps to address all of the new DOE and EPA standards and rules.

- We are re-engineering cases and systems to operate with new refrigerants.
- We are transitioning to acceptable blowing agents in all of our operations.
- We are reducing energy consumption while maintaining performance standards.

For more information on these regulations, please contact Ronald Shebik, Director of Government & Regulatory Affairs, Hussmann Corporation. Phone: 314-298-6483. E-mail: ron.shebik@hussmann.com.

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Appendix: Key Dates for Refrigerant Regulations in California

New Equipment/Installations

Application	Supermarket (Racks & Protocol)	Remote Condensing Units	Stand-Alone (Self-Contained) Med Temp < 2,200 Btuh	Stand-Alone (Self-Contained) Med Temp > 2,200 Btuh	Stand-Alone (Self-Contained) Low Temp
Compliance Date*	1/1/2019	1/1/2019	1/1/2019	1/1/2020	1/1/2020
Key Prohibited Refrigerants	R-404A, R-507A	R-404A, R-507A	R-404A, R-507A, R-407A/F, R-134a	R-404A, R-507A, R-407A/F, R-134a	R-404A, R-507A, R-407A/F, R-134a
Key Acceptable Refrigerants	R-407A/F, R-448A, R-449A, R-744 (CO_2)	R-407A/F, R-448A, R-449A	R-290, R-744, R-513A, R-450A, R-448A, R-449A	R-290, R-744, R-513A, R-450A, R-448A, R-449A	R-290, R-744, R-448A, R-449A

Refrigerant Retrofits

Application	Supermarket (Racks & Protocol)	Remote Condensing Units	Stand-Alone (Self-Contained) Med Temp < 2,200 Btuh	Stand-Alone (Self-Contained) Med Temp > 2,200 Btuh	Stand-Alone (Self-Contained) Low Temp
Compliance Date**	1/1/2019	1/1/2019	1/1/2019	1/1/2019	1/1/2019
Key Prohibited Refrigerants	R-404A, R-507A	R-404A, R-507A	R-404A, R-507A	R-404A, R-507A	R-404A, R-507A
Key Acceptable Refrigerants	R-407A/F, R-448A, R-449A, R-744 (CO_2)	R-407A/F, R-448A, R-449A	R-513A, R-450A, R-448A, R-449A	R-513A, R-450A, R-448A, R-449A	R-448A, R-449A

**The compliance date is the date the equipment is manufactured.*

***The compliance date is the date the retrofit takes place.*