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FACT SHEET

Proposed Rule 26 – Protection of Stratospheric Ozone: Listing of Substitutes under the Significant New Alternatives Policy Program in Commercial and Industrial Refrigeration

Significant New Alternatives Policy (SNAP) Program

Under section 612 of the Clean Air Act (CAA), EPA reviews substitutes in a comparative risk framework. EPA lists these substitutes as acceptable, acceptable subject to use conditions, acceptable subject to narrowed use limits, or unacceptable (prohibited) for specific uses. Section 612 requires EPA to list as acceptable those substitutes that do not present a significantly greater risk to human health and the environment as compared with other substitutes that are currently or potentially available.

As part of the evaluation of overall risk to human health and the environment, EPA considers many criteria, including the flammability and toxicity of a substitute, worker and consumer exposure, and environmental risks such as impacts on ecosystems, local air quality, and on the global atmosphere.

Today's Action

Under this proposed rule, 10 refrigerants would be listed as acceptable, subject to use conditions, in the Refrigeration & Air Conditioning sector. Consistent with CAA section 612 as it has historically been interpreted under the SNAP Program, EPA is proposing to issue these listings and modifications based on evaluation of the substitutes addressed in this action using the SNAP criteria for review and considering other available and potentially available substitutes. EPA is proposing use conditions that would reflect the Underwriters Laboratory (UL) Standard 60335-2-89, 2nd Edition, and the 2022 edition of the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) 15 standard.

Final Rule

What is proposed in the Rule?

- Lists 10 refrigerants as acceptable, subject to use conditions
- Modifies use conditions for R-290 (propane)
- References latest version of UL 60335-2-89, ASHRAE 15-2022, and ASHRAE 34-2022
- Exempts R-290 in refrigerated food processing and dispensing equipment from the CAA section 608 venting prohibition

Which industrial sectors are included?

- Refrigeration & Air Conditioning

Who would be affected?

- Chemical producers
- Equipment manufacturers
- Commercial and consumer end users of equipment and products using refrigerants
- Service technicians

AIM Act

The United States is phasing down hydrofluorocarbons (HFCs) consistent with the American Innovation and Manufacturing (AIM) Act’s schedule and has recently proposed to restrict the use of certain higher-global warming potential (GWP) HFCs in specific sectors and subsectors (December 15, 2022, 87 FR 76738). These proposed listings support the transitions from HFCs.

This action also proposes to modify use conditions for the refrigerant R-290 (propane) in certain refrigeration end uses. EPA previously listed R-290 acceptable, subject to use conditions, in new self-contained commercial ice machines and stand-alone equipment in SNAP Rules 21 (81 FR 86779; December 1, 2016) and 17 (76 FR 78837; December 20, 2011), respectively. This proposed action would modify those use conditions to reflect the UL Standard 60335-2-89, 2nd Edition, in place of UL Standards 563 and 471, and would apply to equipment manufactured after the effective date of a final rule based on this proposal. In addition to proposing to list propane as acceptable, subject to use conditions, as a refrigerant in new refrigerated food processing and

dispensing equipment, EPA is also proposing to exempt propane in that end-use from the venting prohibition under CAA section 608.

Summary of Proposed Rule

ACCEPTABLE ALTERNATIVES, WITH USE CONDITIONS

End-Use	Substitutes	Conditions ¹
Refrigeration & Air Conditioning		
Commercial Ice Machines (New)	HFC-32, HFO-1234yf, R-454A, R-454B, R-454C, R-455A, R-457A, R-516A	Acceptable Subject to Use Conditions
Industrial Process Refrigeration (New)	HFC-32, ² HFO-1234yf, HFO-1234ze(E), R-454A, ³ R-454B, ² R-454C, R-455A, R-457A, R-516A	Acceptable Subject to Use Conditions
Cold Storage Warehouses (New)	HFO-1234yf, HFO-1234ze(E), R-454A, ⁴ R-454C, R-455A, R-457A, R-516A	Acceptable Subject to Use Conditions
Ice Skating Rinks (New)	HFO-1234yf, HFO-1234ze(E), R-454C, R-455A, R-457A, R-516A	Acceptable Subject to Use Conditions
Retail Food Refrigeration (New)—Refrigerated Food Processing and Dispensing Equipment and Stand-alone Units	HFO-1234yf, HFO-1234ze(E), R-454C, R-455A, R-457A, R-516A	Acceptable Subject to Use Conditions
Retail Food Refrigeration (New)—Refrigerated Food Processing and Dispensing Equipment	R-290 (propane)	Acceptable Subject to Use Conditions
Retail Food Refrigeration (New)—Supermarket Systems and Remote Condensing Units	HFO-1234yf, HFO-1234ze(E), R-454A, ⁴ R-454C, R-455A, R-457A, R-516A	Acceptable Subject to Use Conditions

¹ For specific use conditions for substitutes listed as Acceptable Subject to Use Conditions, consult the proposed rule.

² HFC-32 and R-454B may only be used in chillers for Industrial Process Refrigeration.

³ R-454A may only be used in chillers, in equipment with a refrigerant charge capacity less than 200 pounds, or in the high-temperature side of a cascade system, for Industrial Process Refrigeration.

⁴ R-454A may only be used in equipment with a refrigerant charge capacity less than 200 pounds, or in the high-temperature side of a cascade system for Cold Storage Warehouses and for Retail Food Refrigeration—Supermarket Systems and Remote Condensing Units.

ACCEPTABLE ALTERNATIVES, WITH MODIFIED USE CONDITIONS

End-Use	Substitutes	Conditions ¹
Refrigeration & Air Conditioning		
Commercial Ice Machines (New)—Self-contained Units	R-290	Acceptable only for use in new equipment ² specifically designed for the refrigerant, including conditions requiring use consistent with UL Standard 60335-2-89, 2 nd Edition, including testing, charge sizes, ventilation, usage space requirements, and certain hazard warnings and markings
Retail Food Refrigeration (New)—Stand-alone Units		

¹ For specific use conditions, consult the proposed rule.

² Applies to new equipment manufactured after the effective date of a final rule based on this proposal.