

## ACCEPTABLE ALTERNATIVES, WITH USE CONDITIONS

| End-Use   | Substitutes  | Conditions <sup>1</sup>              |
|---|--|--------------------------------------|
| <b>Refrigeration &amp; Air Conditioning</b>   |  |                                      |
| 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, <sup>2</sup> HFO-1234yf, HFO-1234ze(E), R-454A, <sup>3</sup> R-454B, <sup>2</sup> R-454C, R-455A, R-457A, R-516A | Acceptable Subject to Use Conditions |
| Cold Storage Warehouses (New)   | HFO-1234yf, HFO-1234ze(E), R-454A, <sup>4</sup> 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, <sup>4</sup> R-454C, R-455A, R-457A, R-516A   | Acceptable Subject to Use Conditions |

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

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

<sup>3</sup> 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.

<sup>4</sup> 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 <sup>1</sup>   |
|--|-------------|---|
| <b>Refrigeration &amp; Air Conditioning</b>        |             |   |
| Commercial Ice Machines (New)—Self-contained Units | R-290       | Acceptable only for use in new equipment <sup>2</sup> specifically designed for the refrigerant, including conditions requiring use consistent with UL Standard 60335-2-89, 2 <sup>nd</sup> Edition, including testing, charge sizes, ventilation, usage space requirements, and certain hazard warnings and markings |
| Retail Food Refrigeration (New)—Stand-alone Units  |             |   |

<sup>1</sup> For specific use conditions, consult the proposed rule.

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