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DATE: 12/1/2008
TO: **Air Conditioning Original Equipment Manufacturers**
FROM: Emerson Climate Technologies, Inc. – Air Conditioning Division
SUBJECT: **HFC Retrofit Refrigerants for R-22 Air Conditioning Applications**

We have received several questions regarding the use of claimed “drop-in” HFC refrigerants for servicing R-22 air conditioning equipment. The purpose of this bulletin is to define Emerson’s position on the use of HFC retrofit refrigerants for air conditioning applications with Copeland® compressors.

Oil return to the compressor is critical to compressor reliability and the overall long-term reliability of the system. HFC refrigerants that claim they can be used with mineral oil are not approved by Emerson for use with Copeland® compressors in air conditioning applications. This is because several published sources have demonstrated continued concern with oil return for systems without oil separators, like air conditioning applications.

The HFC retrofit refrigerants that are not approved include R-417A, R-422A/B/C/D, R-434A, and R-421A. For more information, please review our updated white paper: Refrigerants for Residential and Commercial Air Conditioning Applications (Form #2007ECT-136), which can be found at EmersonClimate.com/refrigerant/ac.

The HFC refrigerant R-410A has been fully tested by Emerson and is our recommended choice for a non-ozone depleting (HFC) refrigerant to replace R-22 in new equipment. However, if you must service an R-22 system with an HFC retrofit refrigerant, R-407C with POE oil is acceptable for compressor reliability and warranty. For more information on R-407C, please review our Refrigerant Changeover Guidelines: R-22 to R-407C (Form #95-14), which can be found in our Online Product Information at EmersonClimate.com.

For more information on refrigerants, go to EmersonClimate.com/refrigerant/ac.