UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DYNATEMP INTERNATIONAL, INC. and FLUOROFUSION SPECIALTY CHEMICALS, INC., Petitioner,

v.

R 421A LLC, Patent Owner.

Case No. IPR2020-01660 U.S. Patent No. 9,982,179

PATENT OWNER'S SUR-REPLY TO PETITIONERS' REPLY TO PATENT OWNER'S PRELIMINARY RESPONSE AND MOTION TO STRIKE PETITIONERS' REPLY

Petitioners' Reply (Paper 12) presents new grounds, new arguments, and new evidence. Petitioners' Reply is an afterthought. They failed to account for cyclopentane in the Petition. Petitioners did not show good cause, and the Board should strike the Reply pursuant to 37 C.F.R. § 42.7 and further because it adds new evidence without authorization contrary to the Board's directive. Patent Owner objects to Petitioners' identification of the boiling point of cyclopentane and the chart at the end of the Reply to the extent used in support of new arguments.

Cyclopentane is a refrigerant gas and can undergo liquid/vapor phase changes in the systems to which the '179 Patent is directed. Petitioners are incorrect that cyclopentane has no effect in an R-22-based system "because it boils at 120°F." 120°F is within the range of working temperatures contemplated in the '179 Patent and cyclopentane will undergo a phase change within that working range. EX1001, 7:67-8:4 ("Table 2 [of the '179 Patent] summarizes ... the range of normal air-conditioner working temperatures, from -60 degree. F. to 160. degree. F."). Petitioners' reference to "NTP" is irrelevant and misleading.

Cyclopentane is among hydrocarbons, which are classified as refrigerants by ASHRAE. EX2015, 2 (identifying non-exclusive list of hydrocarbon refrigerants R-600 butane and R-601 pentane). Singh identifies cyclopentane as a refrigerant. EX1011, ¶0021 (distinguishing cyclopentane from additives, stating "In addition to

R-125, R-134a and cyclopentane, the compositions of the invention may also contain additives ..."); ¶0020 ("the present refrigerant compositions consist essentially of R-125, R-134a and cyclopentane"); ¶0015 (teaching the replacement of the refrigerant n-pentane with another, cyclopentane). Roberts also identifies hydrocarbons as refrigerants (EX1019, 1:35-55 (describing "a refrigerant composition which comprises ... (c) an unsubstituted hydrocarbon of the formula C_nH_m in which n is at least 4 and m is at least 2n-2")), as well as Pearson (EX1009, 1:40-50), that the Petitioners now seek to withdraw. Examiner Hardee also identified hydrocarbons as refrigerants. EX2003, 29 (Examiner Hardee stating that the "reference [Powell] discloses percentages of the two recited refrigerants ... , but a careful reading shows that ... a third refrigerant, a hydrocarbon, is present in all compositions.").

The boiling point of pentane, a refrigerant gas designated R-601, is 97°F (EX2015, 2), also above the NTP arbitrarily asserted in the Reply.

Petitioners' new approach without good cause is to <u>read out</u> the "consisting of" transition term in the claims. Suddenly, they now suggest that components can be ignored outside of a very narrow band of boiling point temperatures. The file history confirms Patent Owner's consideration of temperatures beyond any "span of primary interest." *Compare* EX1003, 98 ¶7 (discussing "span of primary interest") with ¶8 (discussing average condensing temperatures spanning 95-149°F).

Dated: March 11, 2021 Respectfully submitted,

/Jason M. Perilla/

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CERTIFICATE OF SERVICE

In accordance with 37 C.F.R. § 42.6(e), the undersigned certifies that on the 11th day of March, 2021, a complete and entire copy of the foregoing Patent Owner's Sur-Reply and Motion to Strike was served on counsel of record for Petitioners, as follows:

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electronically, via e-mail, at: emroney@michaelbest.com, robert.goozner2@gmail.com, and jrtrembath@michaelbest.com, by consent of counsel of record for Petitioners.

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