

**Interpretation IC 170-2008-9 of
ANSI/ASHRAE Standard 170-2008
Ventilation of Health Care Facilities**

Date Approved: January 21, 2014

Request from: Travis English (Travis.R.English@kp.org), Kaiser Permanente, 1800 Harrison Street, Oakland, CA 94612.

Reference: This request for interpretation refers to the requirements in ANSI/ASHRAE/ASHE Standard 170-2008, Section 7 and Table 7-1, regarding to simultaneous heating and cooling.

Background: Reheat systems, such as constant air-volume with zone reheat (CAV-R), are energy-wasteful. They may be the single most inefficient HVAC system type [1]. This is long recognized. And, reheat, as a design practice, is prohibited by the energy standard ASHRAE Standard 90.1 (S90.1), Section 6.5.2 “*Simultaneous Heating and Cooling Limitation*”.

However, S90.1 grants some limited exceptions to ban on reheat.

S90.1 grants a specific exemption in Section 6.5.2.1, Exception a 4, for “*The air flowrate required to comply with applicable codes or accreditation standards, such as pressure relationships or minimum air change rates.*”

For healthcare facilities, where ASHRAE Standard 170 (S170) has been adopted or adapted into jurisdictional regulation, Table 7-1 is the source of the “*minimum air change rates*” in those “*codes and accreditation standards*”.

As such, any space with a “*Total Air ACH*” value listed in S170 Table 7-1, column 5, is exempt from S90.1 Section 6.5.2. Those zones may use reheat.

Please Note: A substantively similar RFI has been submitted to S90.1.

[1] – Doty SP. 2009. Simultaneous Heating and Cooling – the HVAC Blight. Energy Engineering, 106(2):42-74

Interpretation: Standard 170 asserts that *each* space with a “*Total Air ACH*” entry listed in Table 7-1 has been considered, and is a warranted exception to the otherwise prohibited and energy-wasteful practice of simultaneous heating and cooling.

Question: Is this interpretation correct?

Answer: No.

Comments: Your request for interpretation regarding the application of Standard 90.1 (2010), Section 6.5.2 should be addressed to the SSPC 90.1 Committee since it appears that your question pertains to Section 6.5.2.1, Exception a4.