

**Interpretation IC 170-2017-8 of
ANSI/ASHRAE/ASHE Standard 170-2017
Ventilation of Health Care Facilities**

Date Approved: February 4, 2020

Request from: Travis R. English, Kaiser Permanente, 4175 E. La Palma Ave, Suite 105, Anaheim, CA 92708.

Reference: This request for interpretation refers to the requirements in ANSI/ASHRAE/ASHE Standard 170-2013, Section 7.1.a.6.i and 7.1.a.6.ii (repeated in 8.1.a and 9.1.a), regarding system outdoor air calculation.

Background: Most hospital central air handling systems in hospitals serve a mix of

- a. Spaces whose ventilation rates come from Standard 170, and
- b. Spaces whose ventilation rates come from Standard 62.1

For illustration, the following two system examples from recent projects

Example 1: Typical Surgery Suite

- a. *Spaces that use Standard 170: 7,330 ft².* PACU Room(s), PACU Bay(s), Soiled Holding, Toilet, Soiled Utility, Clean supply, Medication preparation, Operating Room (s), Central Work, Sterile Storage, Operating Room, Ortho, Cart assembly area, Clean work area, Decontamination.
- b. *Spaces that use Standard 62.1: 9,310 ft².* Break room/Staff Lounge, Conference room, Consultation room, Non-patient Corridor, Dressing room, MD work area, Nurse work area, Office, Reception, Staff lockers, staff toilet, staff shower, Clin Tech Storage, Equipment Storage, General Storage, Secure Storage, Wheelchair Storage, Supply Storage, Unit Clerk Office, General Vestibule, Family Waiting, Clin Tech Work area.

Example 2: Typical Patient Floor

- a. *Spaces that use Standard 170: 13,230 ft².* All Room(s), All Anteroom(s), Clean Supplies, Food Station, Janitor, Blood Lab, Med Prep, Patient Room(s), Patient Corridor, Patient Toilet(s), Soiled Utility.
- b. *Spaces that use Standard 62.1: 3,460 ft².* Admin hallway, Hand wash area, Staff Lockers, Nurses' station, Cart and Equipment Storage, Multi-purpose, Office, Reporting, Staff Lounge, Staff Toilet, Family Waiting, Staff Workroom.

Standard 170 §7.1.a.6 says there are two methods of calculating system outdoor air. §7.1.a.6.i is "*the sum of the individual space requirements as defined by this standard*". 7.1.a.6.ii is "*by the Ventilation Rate Procedure (multiple zone formula) of ASHRAE 62.1*".

However, §7.1.a.6.i is not permitted by ASHRAE Standard 62.1. I don't believe Standard 170 means to allow systems with Standard 62.1 space to use a method of calculation that fails to comply with Standard 62.1.

Therefore, it seems any system serving a mix of Standard 62.1 and Standard 170 spaces must follow §7.1.a.6.ii.

Interpretation: Any system serving spaces whose ventilation rates come from ASHRAE Standard 62.1 must use §7.1.a.6.ii and shall not use §7.1.a.6.i.

Question: Is this interpretation correct?

Answer: No

Comments: Standard 170 offers specific methods for minimum OA calculation in para 7.1.a.6. It is incorrect to express that para 7.1.a.6.i is not permitted by Standard 62.1 as they are distinct and separate. This is a Standard 170 method and not a Standard 62.1 method of compliance.

Applicability and compliance with Standard 62.1 is as defined by the authority having jurisdiction and the user and not addressed in Standard 170. Any system serving spaces whose ventilation rates come from ASHRAE Standard 62.1 should comply with Standard 62.1. Standard 170 cannot advise on how to meet Standard 62.1.

For a system whose ventilation rates come from both ASHRAE Standard 62.1 and Standard 170, the system must comply with both standards at the system level. It is up to the user to design a system that meets both standards.