

**INTERPRETATION IC 62.1-2016-2 OF  
ANSI/ASHRAE STANDARD 62.1-2016  
VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY**

Approved: January 15, 2018

**Request from:** Max Sherman, Lawrence Berkeley National Laboratory, MHS 90-3074; 1 Cyclotron Rd, Berkeley, CA 94720.

**Reference:** This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 62.1-2016, regarding the differences between the Ventilation Rate Procedure (VRP) and the Indoor Air Quality Procedure (IAQP) for compliance with the standard.

**Background:** Section 6 allows compliance using either the Ventilation Rate Procedure (VRP) or the Indoor Air Quality Procedure (IAQP). These interpretations requests related to the differences between those two approaches and assume that all common requirements are suitably complied with. The VRP indirectly provides contaminant control. The IAQP directly provides contaminant control. It is important to understand the equivalence between these in order to specify innovative and high performance systems.

Quoting from the Standard:

“Although the intake airflow determined using each of these approaches may differ significantly because of assumptions about the design, any of these approaches is a valid basis for design.”

“Combined IAQ Procedure and Ventilation Rate Procedure. The IAQ Procedure in conjunction with the Ventilation Rate Procedure shall be permitted to be applied to a zone or system. In this case, the Ventilation Rate Procedure shall be used to determine the required zone minimum outdoor airflow, and the IAQ Procedure shall be used to determine the additional outdoor air or air cleaning necessary to achieve the concentration limits of the contaminants and contaminant mixtures of concern.”

“Acceptable indoor air quality may not be achieved in all buildings meeting the requirements of this standard for one or more of the following reasons:

- a. Because of the diversity of sources and contaminants in indoor air
- b. Because of the many other factors that may affect occupant perception and acceptance of indoor air quality, such as air temperature, humidity, noise, lighting, and psychological stress
- c. Because of the range of susceptibility in the population
- d. Because outdoor air brought into the building”

“For each contaminant of concern, a concentration limit and its corresponding exposure period and an appropriate reference to a cognizant authority shall be specified.”

These quotes highlight the fact that the ASHRAE/ANSI 62.1 itself has become a cognizant authority, albeit indirectly through the VRP and its resulting contaminant exposure.

**Interpretation No.1:** Regardless of whether VRP or IAQP compliance option is chosen the user can generally expect acceptable indoor air quality within the description of the Title, Purpose, and Scope of the standard, even though specific concentrations of contaminants of concern may be different.

**Question No.1:** Is this interpretation correct?

**Answer No.1:** Yes

**Comments:** Standard 62.1 intends to provide indoor air quality that is acceptable to human occupants and that minimizes adverse health effects.

**Interpretation No.2:** If all the requirements of the standard are met while using the VRP, then the design complies with the standard, even if contaminant concentrations *are known to routinely* exceed levels deemed harmful by a cognizant authority.

**Question No.2:** Is this interpretation correct?

**Answer No.2:** Yes

**Interpretation No.3:** A system which does not always provide the minimum ventilation required by the VRP would still meet the standard if all contaminants of concern were no higher than they would be if the VRP were complied with, assuming suitable documentation was provided.

**Question No.3:** Is this interpretation correct?

**Answer No.3:** No

**Comments:** VRP cannot be used as a benchmark to meet IAQP.