

**INTERPRETATION IC 62-2001-42 OF
ASHRAE STANDARD 62-2001
VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY**

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Request from: Brandt H. Williams, P.E., CIAQP (bhw@triad.rr.com) & Charles E. Gullledge, III, P.E., Moser Mayer Phoenix Associates, 328 E. Market Street, Suite 200, Greensboro, NC 27401.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 62-2001, Section 6, Procedures, and Table 2, Outdoor Air Requirements for Ventilation, as they relate to applying a Demand Control Ventilation (DCV) Strategy.

Background 1: Section 6.1 provides a procedure for determining the quantity of outside ventilation air required. The standard does not appear to address the application of a demand control ventilation (DCV) strategy when using the intermittent or variable occupancy rule in Section 6.1.3.4, specifically the allowance for use of the average occupancy for determining outdoor airflow when peak occupancies are less than 3 hours in duration.

Interpretation 1: Our interpretation is that a DCV strategy cannot be provided that would allow for less outside air than that provided as the minimum calculated (determined) by implementation of the intermittent occupancy rule.

Question 1: Is this interpretation correct?

Answer 1: No. Interpretation #6 of ASHRAE Standard 62-2001 (question 5-h) previously pointed out that the standard allowed the use of demand controlled ventilation, but also noted that it would be improper to also apply the “less-than three hour peak” provision in 6.1.3.4 at the same time. Therefore, the outdoor air rates provided under DCV are not related to the rates determined under this provision of 6.1.3.4.

Note that one could design a system with both capabilities as long as they were not employed simultaneously. For example, a school auditorium could be designed to employ dynamic demand controlled ventilation under conditions of partial occupancy, with the outdoor air intake controlled by the CO₂ level. However, during high-occupancy events the outdoor air intake rate could be based on the intermittent occupancy provision of 6.1.3.4 if it applied.

Background 2: Section 6.2 provides an alternative procedure to that of Section 6.1 for determining the quantity of outside ventilation air required by Section 6.1. The standard does not appear to address the application of a DCV to this section.

Interpretation 2: Our interpretation is that a DCV strategy cannot be provided that would allow the minimum outside air quantity to be less than that allowed by the calculated value when applying the Indoor Air Quality Procedure of Section 6.2.

Question 2: Is this interpretation correct?

Answer 2: No. The Indoor Air Quality Procedure of Section 62.1 does specifically require the calculation of outdoor air quantities and therefore does not allow or disallow any particular value that would serve as a minimum. Rather, the Indoor Air Quality Procedure is based on the control of contaminant levels to achieve a combination of subjective and objective criteria, and a DCV or any other strategy employed in the design needs to be consistent with the chosen criteria.