

**INTERPRETATION IC 90.1-2004-4 OF  
ANSI/ASHRAE/IESNA STANDARD 90.1-2004  
Energy Standard for Buildings Except Low-Rise Residential Buildings**

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**Request from:** Mr. Chris Jones (e-mail: <mailto:cjones@islandnet.com>), 14 Oneida Avenue, Toronto, Ontario M5J 2E3.

**Reference:** This request for interpretation refers to the requirements presented in ANSI/ASHRAE/IESNA Standard 90.1-2004, Section 11.3.2(d) *HVAC Systems*, relating to minimum *outdoor air* ventilation rates to be used for the *budget building design* and the *proposed building*.

**Background:** Section 11.3.2(d) of Standard 90.1-2004 states “Minimum *outdoor air* ventilation rates shall be the same for both the *budget building design* and *proposed building*.”

**Interpretation:** I have interpreted this section to mean that the budget building and proposed building shall use the same minimum outdoor air ventilation rate *if that rate is within reasonable amounts*. For example, if the building is primarily office space then one would not expect the minimum outdoor air rate to be in excess of 20 cfm per person. If the designer proposes a very high minimum ventilation rate compared with a known standard for the space type, then the budget building would be modelled with a minimum outdoor ventilation rate set at a known standard rate.

**Question:** Is this interpretation correct?

**Answer:** No.

**Comments:** The standard clearly states “*the same for both the budget building design and proposed building*”, which means that the minimum outdoor air rate for the budget building design and the proposed (actual) building design must be equal. By having equal amounts of outdoor air in the budget building and the proposed building the energy cost comparison is unbiased.

The purpose of ASHRAE Standard 90.1 is to provide minimum requirements for energy efficient design; not design recommendations or criteria (minimum outdoor air rate, space temperature, etc.) Your interpretation will violate the objectivity of the comparison by giving the user the liberty to use different design criteria for the budget building and the proposed design.

The budget building design is a representation of a building that meets the prescriptive path ASHRAE Standard 90.1. The prescriptive path does not specify minimum outdoor air requirements. The minimum outdoor air for the budget building and the proposed building design must be the same.