



**BSR/ASHRAE/IES Addendum g
to ANSI/ASHRAE/IES Standard 90.1-2019**

Public Review Draft

Proposed Addendum g to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings

**First Public Review (March 2020)
(Draft Shows Proposed Changes to Current Standard)**

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Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and strikethrough (for deletions) unless the instructions specifically mention some other means of indicating the changes. Only these changes are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed substantive changes.

FOREWORD

The current language in 6.5.1.1.5 is: “Systems shall provide a means to relieve excess outdoor air during air economizer operation to prevent overpressurizing the building. The relief air outlet shall be located so as to avoid recirculation into the building.”

This is vague and unenforceable. Consequently, it is often ignored and violated. The proposed language is specific and enforceable and will achieve the desired intent of the current language.

When the relief path has a high static resistance and the relief is not fan powered, economizer use can result in over pressurization of the building. Requiring return/relief fans or properly sized barometric relief will prevent over pressurization and thus save energy by allowing 100% economizing and eliminating the need for building operators to disable economizers.

This adds more clarity on how to comply with the current requirement, and therefore does not affect cost effectiveness.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum g to 90.1-2019

Modify 6.5.1.1.5 as follows (I-P and SI):

6.5.1.1.5 Relief of Excess Outdoor Air

A. Systems shall provide ~~a~~ one of the following means to relieve excess *outdoor air* during *air economizer* operation to prevent overpressurizing the *building*:

1. Return or relief fan(s) meeting the requirements of section 6.5.3.2.4.
2. Barometric or motorized damper relief path with a total pressure drop at design relief airflow rate less than 0.10 inches water column (25 Pa) from the occupied *space* to outdoors. Design relief airflow rate shall be the design supply airflow rate minus any continuous exhaust flows, such as toilet exhaust fans, whose makeup is provided by the economizer system.

B. The relief air outlet shall be located so as to avoid recirculation into the *building*.