BSR/ASHRAE Addendum *b* to
ANSI/ASHRAE Standard 209-2024

First Public Review Draft

Proposed Addendum *b* to Standard 209-2024, Energy Simulation Aided Design for Buildings except Low-Rise Residential Buildings

First Public Review Draft (August 2025)
(Draft shows Proposed Changes to Current Standard)

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ASHRAE, 180 Technology Parkway, Peachtree Corners, GA 30092

(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

Foreword

The proposed revisions to this cycle include adding detail to the purpose for clarity, making it clear that if modeling #4 is conducted, that this cycle would occur after that instead of after cycle #3, and the addition of language to specify how complete the design should be when performing this cycle (i.e., the cycle is to not make major decisions but more to fine tune major decisions made previously in the design process).

Existing Language

6.5 Modeling Cycle #5—Design Refinement

6.5.1 Purpose. Use *energy modeling* to evaluate systems in the building, confirm current design directions, and support further development of the building design.

6.5.2 Applicability

6.5.2.1 When this *modeling cycle* is used to show compliance with the standard, it shall be started after the completion of Modeling Cycle #3 and completed before the end of the *construction document phase*.

6.5.2.2 Prior to commencing Modeling Cycle #5, a design direction shall be defined for the building form and orientation, the *HVAC system* type or types, service water heating system type or types, and a space programming scheme.

6.5.3 Analysis. Use *energy modeling* to refine and develop the design of at least one building system, including (but not limited to) the following:

a. *HVAC systems*
b. Lighting systems
c. Envelope systems
d. Service water heating systems
e. Process and plug-load systems

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (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.]

Proposed Changes

6.5 Modeling Cycle #5—Design Refinement

6.5.1 Purpose. Use *energy modeling* to evaluate systems in the building~~,~~ to confirm current design ~~direction~~ is on track to achieve project goals and support further ~~development~~ refinement of the building design to optimize building performance.

6.5.2 Applicability

6.5.2.1 When this *modeling cycle* is used to show compliance with this standard, it shall be started after the completion of Modeling Cycle #3, or Modeling Cycle #4 (if completed), ~~-~~and ~~completed~~ conclude prior ~~before~~ to the end of the *construction document phase*.

6.5.2.2 Prior to commencing Modeling Cycle #5, ~~a design direction shall be defined~~ major design decisions have been made, including ~~for~~ the building form and orientation, the *HVAC system* type or types, service water heating system type or types, and a space programming scheme. This modeling cycle shall be limited to providing analysis to support selecting component performance levels (e.g., lighting efficacy, heating efficiency, equipment quantities, insulation R-values, shading depth, etc.), and controls.

6.5.3 Analysis. Use *energy modeling* to refine and develop the design of at least one building system, including (but not limited to) the following:

b. *HVAC systems*
c. Lighting systems
d. Envelope systems
e. Service water heating systems
f. Process and plug-load systems