BSR/ASHRAE/IES Addendum a
to ANSI/ASHRAE/IES Standard 90.1-2025

Public Review Draft

Proposed Addendum a to Standard 90.1-2025, Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings

First Public Review (May 2026)
(Draft Shows Proposed Changes to Current Standard)

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FOREWORD

This addendum adds heat recovery chillers and heat pumps to plant equipment isolation requirements similar to what is already required for cooling-only chillers and to boilers so that the requirements are consistent.

Life cycle cost analysis was not performed since this addendum simply expands an existing requirement to include a new type of heating/cooling equipment.

[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.]

Addendum a to 90.1-2025

Modify Section 3.3

HW heating water or hot water

Modify Section 6.5.4.3

6.5.4.3 ~~Chiller and Boiler~~ Hydronic Equipment Isolation

Informative Note: ASHRAE Guideline 36 includes detailed sequences of control for chiller and *boiler*/heat pump flow isolation and staging using *automatic* isolation valves or dedicated primary *pumps* with check valves.

6.5.4.3.1 When a chilled-water plant includes more than one chiller, heat recovery chiller, heat pump chiller, or any combination thereof, provisions shall be made so that all fluid flow through the chiller evaporator, and chiller condenser if applicable, is *automatically* shut off when the chiller is shut down. This requirement applies to each module of modular chillers if the modules are intended to be staged. Chillers or chiller modules piped in series for the purpose of increased temperature differential shall be considered as one chiller. Where constant-speed chilled-water or condenser water *pumps* are used to serve multiple chillers or staged chiller modules, the number of *pumps* shall be no less than the number of chillers and staged on and off with the chillers.

6.5.4.3.2 When a ~~*boiler*~~ hot-water plant includes more than one hot water generating equipment (HW generator), including but not limited to *boilers*, heat recovery chillers, heat pumps, or any combination thereof, provisions shall be made so that the flow through the ~~*boiler*~~ HW generator, and heat pump evaporator if applicable, is *automatically* shut off when the ~~*boiler*~~ HW generator is shut down. This requirement applies to each module of modular HW generators if the modules are intended to be staged. HW generators or modules piped in series for the purpose of increased temperature differential shall be considered as one HW generator. Where constant-speed hot-water *pumps* are used to serve multiple

~~*boilers*~~ HW generators, the number of *pumps* shall be no less than the number of HW generators or modules ~~*boilers*~~ and staged on and off with the~~*boilers*~~ HW generators.