



**BSR/ASHRAE/ASHE Addendum k  
to ANSI/ASHRAE/ASHE Standard 170-2021**

**Public Review Draft**

**Proposed Addendum k to  
Standard 170-2021, Ventilation of  
Health Care Facilities**

**Third Public Review (August 2024)  
(Draft shows Proposed Changes to Current Standard)**

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**(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 addendum clarifies that this section applies to the central systems that provide cooling or heating by changing the name of the section. It adds requirement for cooling reserve capacity in addition to the heating reserve capacity for spaces already listed in this section. This provides guidance to designers to a minimum reserve capacity required to start with and engage with the facility on what their operational needs are. The addendum also takes out the onsite fuel requirement from 6.1.2.1 so that the exception to 6.1.2.1 does not apply to it anymore. Its added back in 6.1.2.2 as its own requirement. The addendum removes the lower limit of 400 ton cooling load as the starting point for considering any reserve capacity for cooling in Inpatient and Residential Health Care facilities.*

*[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 k to 170-2021

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*Revise Section 3 as shown below.*

~~**essential accessories:** those components of a system, required to allow proper operation of that system, that are reasonably subject to mechanical failure (e.g., pumps, fans, control air compressors). Humidifiers, controls, and tanks are not included in this definition.~~

~~**Heating and Cooling Central Systems:** Systems that provide heating or cooling fluid for distribution via pumps or pressure to more than a single air distribution system in the facility.~~

*Revise Section 6.1.2 as shown below.*

### 6.1.2 Heating and Cooling ~~Sources~~ Central Systems

~~**6.1.2.1:** For facilities that have spaces listed in Sections 7.1, 8.1 and 9.1 of this standard; design the heating and cooling central systems Provide heat sources and essential accessories in number and arrangement sufficient to accommodate the facility needs (reserve capacity), even when any one of the heat-sources or essential accessories is not operating due to a breakdown failure or routine maintenance. The capacity of the remaining source or sources shall be sufficient to provide for domestic hot water, sterilization, dietary purposes, and to provide heating for operating, delivery, birthing, labor, recovery, emergency, intensive care, nursery, and resident care areas, and inpatient/resident rooms. Fuel sufficient to support the owner's facility operation plan upon loss of fuel service shall be provided on site. The reserve capacity shall be a minimum of 50% of the peak heating and cooling design loads, or as required by Owner's Project Requirements (OPR) or Operational Plan.~~

**Informative Note:** The 50% reserve capacity is not intended to indicate individual equipment quantity and size but rather when the largest piece of equipment fails, what remains can satisfy the 50% of the design cooling or heating load.

**Exception to 6.1.2.1:** Reserve capacity for heating is not required if the ASHRAE 99% heating dry-bulb temperature for the facility is greater than or equal to 25°F(-4°C).

**~~6.1.2.2 Inpatient and Residential Health Care Spaces.~~** ~~For central cooling systems greater than 400 tons (1407 kW) peak cooling load, the number and arrangement of cooling sources and essential accessories shall be sufficient to support the owner's facility operation plan upon a breakdown or routine maintenance of any one of the cooling sources.~~

**6.1.2.2:** For facilities that have spaces listed in Sections 7.1 and 9.1 of this standard; provide fuel/energy storage to ensure facility heating and cooling operation for a minimum of 24 hours for the reserve design capacity upon loss of primary-energy source.

**Informative Notes:**

1. Refer to NFPA-99 for emergency power requirements.
2. Facilities should evaluate water storage capacity for heating and cooling systems based on their operational needs.