



**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**

Second Public Review (February 2024)
(Draft shows Proposed Changes to Current Standard)

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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 ~~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 k to 170-2021

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,~~ ~~e~~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. ~~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 or routine maintenance. The capacity of the remaining source or sources~~ The minimum reserve design capacity shall be sufficient to provide for domestic hot water, sterilization, dietary purposes, and to provide heating to meet the design temperature and humidity ranges as prescribed in this standard for operating, LDR, LDRP 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.

6.1.2.1.a: Provide sources and essential accessories (see definition) in number and arrangement sufficient to accommodate the facility needs (for reserve design capacity), even when any one of these sources or essential accessories is not operating due to breakdown or routine maintenance.

6.1.2.1.b: Reserve design capacity shall include equipment, accessories, and the controls necessary to ensure safe and reliable operation to support the owner's operation plan.

Exception to 6.1.2.1: Reserve capacity for space 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 Provide onsite fuel storage for heating, cooling, dehumidification and humidification sources to ensure facility operation for the minimum reserve design capacity upon loss of primary-energy source based on the facility operational plan.

Informative Note: Facilities that use steam for building heating and domestic hot water production should evaluate water storage capacity based on their operational plan.

Informative Note: The facility operational plan should define the outdoor air dry-bulb temperature, wet-bulb temperature, and dewpoint at the which the minimum cooling reserve design capacity is intended to be satisfactorily delivered and note how many hours per year this outdoor air condition could be expected to be exceeded.