



**BSR/ASHRAE/ASHE Addendum b
to ANSI/ASHRAE/ASHE Standard 170-2017**

Public Review Draft

**Proposed Addendum b to
Standard 170-2017, Ventilation of
Health Care Facilities**

**First Public Review (February 2019)
(Draft shows Proposed Changes to Current Standard)**

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FOREWORD

This proposed addendum removes several spaces from Tables 7.1, 8.1, and 9.1 based on those spaces being adequately addressed in other standards. The addendum also proposes to modify minimum total air change requirements for several spaces based on the results of CO-RP 3.

[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 b to 170-2017

Revise Section 7.5.3 and Table 7.1 as shown below. The remainder of Table 7.1 is unchanged.

Table 7.1 Design Parameters—Hospital Spaces

Function of Space	Pressure Relationship to Adjacent Areas (n)	Minimum Outdoor ach	Minimum Total ach	All Room Air Exhausted Directly to Outdoors (j)	Air Recirculated by Means of Room Units (a)	Design Relative Humidity (k), %	Design Temperature (l), °F/°C
SURGERY AND CRITICAL CARE							
Medical/ anesthesia gas storage (r)	Negative	NR	8	Yes	NR	NR	NR
RADIOLOGY							
Darkroom (g)	Negative	2	40	Yes	No	NR	NR
DIAGNOSTIC AND TREATMENT							
Dialyzer reprocessing room	Negative	NR	10 (bb)	Yes	No	NR	NR
SERVICE							
Bathroom	Negative	NR	40	Yes	No	NR	72-78/22-26
Food preparation areas (i)	NR	2	40	NR	No	NR	72-78/22-26
Warewashing (r)	Negative	NR	40-NR	Yes	No	NR	NR

Note: NR = no requirement

- i. Minimum total air changes per hour (ach) shall be that required to provide proper makeup air to kitchen exhaust systems as specified in ANSI/ASHRAE Standard 154. In some cases, excess exfiltration or infiltration to or from exit corridors compromises restrictions in NFPA 90A,⁵ the pressure requirements of NFPA 96,⁶ or the maximum defined in the table. During operation, a reduction to the number of air changes to any extent required for odor control shall be permitted when the space is not in use.
- r. ~~See NFPA 99-10 for further requirements. Exhaust rate shall meet or exceed local requirements.~~
- bb. Lower total ach ventilation rates shall be permitted when use of the ASHRAE Standard 62.1¹ IAQ procedure determines that concentration of the contaminants of concern is lower than the corresponding concentration of interest.

7.5 Support Spaces

7.5.3 Medical/Anesthesia Gas Storage Rooms. Ventilation for medical/anesthesia gas storage rooms shall comply with NFPA 99¹⁰.

7.5.4 Food preparation areas. Provide makeup air to kitchen exhaust systems as specified in ANSI/ASHRAE Standard 154.⁴ Kitchens with Type I hoods shall be designed to have a negative pressure with respect to adjacent areas.

Informative Note: In some cases, excess exfiltration or infiltration to or from exit corridors compromises the exit corridor restrictions of NFPA 90A⁵ or the pressure requirements of NFPA 96.⁶

Revise Section 8.5.3 and Table 8.1 excerpts as shown below. The remainder of Table 8.1 is unchanged.

Table 8.1 Design Parameters—Outpatient Spaces

Function of Space	Pressure Relationship to Adjacent Areas (n)	Minimum Outdoor ach	Minimum Total ach	All Room Air Exhausted Directly to Outdoors (j)	Air Recirculated by Means of Room Units (a)	Design Relative Humidity (k), %	Design Temperature (l), °F/°C
SURGERY AND CRITICAL CARE							
Medical/anesthesia gas storage (†)	Negative	NR	8	Yes	NR	NR	NR
INPATIENT NURSING							
All anteroom (u)	(e)	NR	10 NR	Yes	No	NR	NR
Combination All/PE anteroom	(e)	NR	10 NR	Yes	No	NR	NR
RADIOLOGY							
Darkroom (g)	Negative	2	10	Yes	No	NR	NR
DIAGNOSTIC AND TREATMENT							
Dialyzer reprocessing room	Negative	NR	10 (bb)	Yes	No	NR	NR
SERVICE							
Bathroom	Negative	NR	10	Yes	No	NR	72–78/22–26
Warewashing (r)	Negative	NR	10 NR	Yes	No	NR	NR

Note: NR = no requirement

r. ~~See NFPA 99-10 for further requirements.~~ Exhaust rate shall meet or exceed local requirements.

bb. Lower total ach ventilation rates shall be permitted when use of the ASHRAE Standard 62.1¹ IAQ procedure determines that concentration of the contaminants of concern is lower than the corresponding concentration of interest.

8.5 Support Spaces

8.5.3 Medical/Anesthesia Gas Storage Rooms. Ventilation for medical/anesthesia gas storage rooms shall comply with NFPA 99¹⁰.

Table 9.1 Design Parameters—Nursing Home Spaces

Function of Space	Pressure Relationship to Adjacent Areas (n)	Minimum Outdoor ach	Minimum Total ach	All Room Air Exhausted Directly to Outdoors (j)	Air Recirculated by Means of Room Units (a)	Design Relative Humidity (k), %	Design Temperature (l), °F/°C
SURGERY AND CRITICAL CARE							
Medical/anaesthesia gas storage (r)	Negative	NR	8	Yes	NR	NR	NR
INPATIENT NURSING							
All anteroom (u)	(e)	NR	10 NR	Yes	No	NR	NR
Combination All/PE anteroom	(e)	NR	10 NR	Yes	No	NR	NR
RADIOLOGY							
Darkroom (g)	Negative	2	10	Yes	No	NR	NR
DIAGNOSTIC AND TREATMENT							
Dialyzer reprocessing room	Negative	NR	10 (bb)	Yes	No	NR	NR
SERVICE							
Bathroom	Negative	NR	10	Yes	No	NR	72-78/22-26
Food preparation areas (i)	NR	2	10	NR	No	NR	72-78/22-26
Warewashing (r)	Negative	NR	10 NR	Yes	No	NR	NR

Note: NR = no requirement

- i. Minimum total air changes per hour (ach) shall be that required to provide proper makeup air to kitchen exhaust systems as specified in ANSI/ASHRAE Standard 154. In some cases, excess exfiltration or infiltration to or from exit corridors compromises restrictions in NFPA 90A,⁵ the pressure requirements of NFPA 96,⁶ or the maximum defined in the table. During operation, a reduction to the number of air changes to any extent required for odor control shall be permitted when the space is not in use.
- r. ~~See NFPA 99-10 for further requirements. Exhaust rate shall meet or exceed local requirements.~~
- bb. Lower total ach ventilation rates shall be permitted when use of the ASHRAE Standard 62.1¹ IAQ procedure determines that concentration of the contaminants of concern is lower than the corresponding concentration of interest.

9.5 Support Spaces

9.5.3 Medical/Anesthesia Gas Storage Rooms. Ventilation for medical/anesthesia gas storage rooms shall comply with NFPA 99¹⁰.

9.5.4 Food preparation areas. Provide proper makeup air to kitchen exhaust systems as specified in ANSI/ASHRAE Standard 154.⁴ Kitchens with Type I hoods shall be designed to have a negative pressure with respect to adjacent areas.

Informative Note: In some cases, excess exfiltration or infiltration to or from exit corridors compromises the exit corridor restrictions of NFPA 90A⁵ or the pressure requirements of NFPA 96.⁶