45-DAY EXPRESS TERMS
FOR PROPOSED BUILDING STANDARDS
OF THE OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
REGARDING THE 2019 CALIFORNIA MECHANICAL CODE,
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 4

(OSHPD 04/18)

The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific (Government Code Section 11346.2(a)(1)).

Note: Select the appropriate legend below and delete the legend that is not used.

LEGEND FOR EXPRESS TERMS (Based on model codes - Parts 2, 2.5, 3, 4, 5, 9, 10)

1. Model Code language appears upright.
2. Existing California amendments appear in *italics*.
3. Amended model code or new California amendments appear *underlined and in italics*.
4. Repealed model code language appears ~~upright and in strikeout~~.
5. Repealed California amendments appear in ~~*italics* and *strikeout*~~.
6. Publishing correction: Language that was published incorrectly, or not published in the 2016 intervening code cycle is shown corrected and in curve underline. This language is not part of the rulemaking and not subject to public comment.

45-DAY EXPRESS TERMS

CHAPTER 1
DIVISION I
ADMINISTRATION

1.10.1 OSHPD 1 and OSHPD 1R. *Specific scope of application of the agency responsible for enforcement, enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.*

OSHPD 1 and OSHPD 1R

Application *– [OSHPD 1] General acute care hospitals buildings. ~~and acute psychiatric hospitals, excluding distinct part units or distinct part freestanding buildings providing skilled nursing or intermediate care services. For structural regulations: Skilled nursing facilities and/or intermediate care facilities except those skilled nursing facilities and intermediate care facilities of single-story, Type V, wood or light steel-frame construction.~~ [OSHPD 1R] Non-conforming hospital buildings*

that have been removed from acute care service.

***Enforcing agency** – Office of Statewide Health Planning and Development (OSHPD). The office shall enforce …*

1.10.1.1 Applicable Administrative Standards:

(1) Title 24, Part 1, California Code of Regulations: Chapters 6 and 7.

(2) Title 24, Part 2, California Code of Regulations: Sections 1.1.0 and 1.10.0, Chapter 1, Division I, and ~~Sections 101.0 and 107.0,~~ as indicated in the adoption matrix for Chapter 1, Division II.

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***1.10.1.2 Applicable Building Standards.** California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10 and 11.*

...

***1.10.1.3 Adopting Agency Identification.** The provisions of this code applicable to buildings identified in this subsection 1.10.1 will be identified in the Matrix Adoption Tables under the Acronyms OSHPD 1, and OSHPD 1R.*

…

***1.10.2 OSHPD 2.** Specific scope of application of the agency responsible for enforcement, enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.*

OSHPD 2

***Application** – Skilled nursing facilities and intermediate care facilities~~,~~ buildings. ~~including distinct part skilled nursing and intermediate care services on a general acute care or acute psychiatric hospital license, providing either are in a separate unit or a freestanding building. For structural regulations: Single-story, Type V skilled nursing facility and/or intermediate care facilities utilizing wood or light steel-frame construction.~~*

***Enforcing agency** – Office of Statewide Health Planning and Development (OSHPD). The office shall also enforce …*

1.10.2.1 Applicable Administrative Standards:

(1) Title 24, Part 1, California Code of Regulations: Chapter 7.

(2) Title 24, Part 2, California Code of Regulations: Sections 1.1.0 and 1.10.0, Chapter 1, Division I, and ~~Sections 101.0 and 107.0,~~ as indicated in the adoption matrix for Chapter 1, Division II.

…

1.10.2.2 Applicable Building Standards. *California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10 and 11.*

...

1.10.3 OSHPD 3. *Specific scope of application of the agency responsible for enforcement, enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.*

…

1.10.3.1 Applicable Administrative Standards:

(1) Title 24, Part 1, California Code of Regulations: Chapter 7.

(2) Title 24, Part 2, California Code of Regulations: Sections 1.1.0 and 1.10.0, Chapter 1, Division I, and ~~Sections 101.0 and 107.0,~~ as indicated in the adoption matrix for Chapter 1, Division II.

1.10.3.2 Applicable Building Standards. *California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10 and 11.*

...

1.10.4 OSHPD 4. *Specific scope of application of the agency responsible for enforcement, enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.*

…

1.10.4.1 Applicable Administrative Standards:

(1) Title 24, Part 1, California Code of Regulations: Chapter 7.

(2) Title 24, Part 2, California Code of Regulations: Sections 1.1.0 and 1.10.0, Chapter 1, Division I, and ~~Sections 101.0 and 107.0,~~ as indicated in the adoption matrix for Chapter 1, Division II.

1.10.4.2 Applicable Building Standards. *California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10 and 11.*

…

1.10.5 OSHPD 5. *Specific scope of application of the agency responsible for enforcement, enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.*

OSHPD 5

Application *– Acute psychiatric hospital buildings.*

Enforcing agency *– Office of Statewide Health Planning and Development (OSHPD). The office shall also enforce the Division of the State Architect – Access*

Compliance regulations and the regulations of the Office of the State Fire Marshal for the above-stated facility types.

1.10.5.1 Applicable administrative standards.

(1) Title 24, Part 1, California Code of Regulations: Chapter 7.

(2) Title 24, Part 2, California Code of Regulations: Sections 1.1 and 1.10, Chapter 1, Division I, and as indicated in the adoption matrix for Chapter I, Division II.

1.10.5.2 Applicable building standards. *California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10 and 11.*

Authority Cited *– Health and Safety Code Sections 1275 and 129850.*

References – Health and Safety Code Sections 129680, 1275 and 129675 through 130070.

1.10.5.3 Adopting Agency Identification. *The provisions of this code applicable to buildings identified in this subsection 1.10.5 will be identified in the Matrix Adoption Tables under the Acronym*

OSHPD 5.

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102.1…[OSHPD 1, 1R, 2, 3, & 4 & 5]

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203.0…Air, Relief. [OSHPD 1, 1R, 2, 3, & 4 & 5]

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204.0…Building Code. The building code that is adopted by this jurisdiction. […OSHPD 1, 1R, 2, 3, & 4 & 5 and SFM]

…

207.0…Enforcing agency. […OSHPD 1, 1R, 2, 3, & 4 & 5]

…

210.0…Health Facilities. [OSHPD 1, 1R, 2, 3, & 4 & 5]

…

223.0…UMC. […OSHPD 1, 1R, 2, 3, & 4 & 5]

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CHAPTER 3

GENERAL REQUIREMENTS

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303.2…[OSHPD 1, 1R, 2, 3, & 4 & 5]…Exception: [OSHPD 1, 1R, 2, 3, & 4 & 5]

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319.1…[OSHPD 1, 1R, & 4 & 5]

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320.5…Psychiatric Services. [OSHPD 1, 1R, & 4 & 5]

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321.0…[OSHPD 1, 1R, 2, 3(Surgical Clinics only) & 4 & 5]

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322.0…[OSHPD 1, 1R, 2, 3(Surgical Clinics only) & 4 & 5]

CHAPTER 4
VENTILATION AIR

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401.1…[OSHPD 1, 1R, 2, 3, & 4 & 5]

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402.1 Occupiable Spaces. *~~[Not permitted for OSHPD 1, 2, 3, and 4]~~* Occupiable spaces listed
in Table 402.1 shall be designed to have ventilation (outdoor) air for occupants in accordance with this chapter. **…**

402.1.3 Ventilation in Health Care Facilities. Mechanical ventilation for health care facilities shall be designed and installed in accordance with this code and ASHRAE 170~~.~~ *[OSHPD 1, 1R, 2, 3, 4 & 5]-2013, through Addendum ae, as published with "Guidelines for Design and Construction of Hospitals and Outpatient Facilities," 2014 edition (published by The Facility Guidelines Institute). All supply-air, return air, and exhaust-air systems shall comply with ASHRAE 170. The text of ASHRAE 170 shall be modified as follows:*

(1)ASHRAE 170. Section 6.1.2.1 -- Not adopted.
(2) ASHRAE 170. Section 6.3.2 -- Not adopted.
(3)ASHRAE 170. Table 6.4 - Not adopted.
(4)ASHRAE 170. Section 6.4-6.4.4 -- Not adopted.
(5)ASHRAE 170. Section 6.9 -- Not adopted.

(6)ASHRAE 170. Section 7.1a -- Modify as follows:
Replace reference to Table 7.1 with reference to Table 4-A.
(7)ASHRAE 170. Section 7.2.1a through e -- Not adopted.
(8)ASHRAE 170. Section 7.2.2 a through c, and e -- Not adopted
(9)ASHRAE 170. Section 7.2.3 -- Not adopted.
(10)ASHRAE 170. Section 7.3.1 -- Modify as follows:
Replace reference to Table 7.1 with reference to Table 4-A.
(11)ASHRAE 170. Section 7.4.1 -- Modify as follows:
Delete the Exception that allows for high return grilles.

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403.0…[Not permitted for OSHPD 1, 1R, 2, 3, & 4 & 5]
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405.0*…****[OSHPD 1, 1R, 2, 3, & 4 & 5]***

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407.0*…****[OSHPD 1, 1R, 2, 3, & 4 & 5]***

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407.4.1.3 *Corridors shall not be used to convey supply, return, transfer or exhaust air to or from any room if the corridor is required to be fire resistive construction per the California Building Code.*

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408.0*…****[OSHPD 1, 1R, 2, 3, & 4 & 5]***

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409.0*…****[OSHPD 1, 1R, 2, 3, & 4 & 5]***

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410.0*…****[OSHPD 1, 1R, 2, 3, & 4 & 5]***

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411.0 *…****[OSHPD 1, 1R, 2, 3, & 4 & 5]***
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412.0 *…****[OSHPD 1, 1R, 2, 3, & 4 & 5]***
…

413.0 *…****[OSHPD 1, 1R, 2, 3, & 4 & 5]***

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414.0…[OSHPD 1, 1R, 2, 3, & 4 & 5]

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415.0…[OSHPD 1, 1R, 2, 3, & 4 & 5]

…

416.0 Alarms - Airborne Infection Isolation Rooms and Protective Environment Rooms. [OSHPD 1,1R, 2, 3, 4, 5]

416.1 *An alarm system which is based on static pressure control, volumetric control, or directional flow measurement shall be provided for each isolation room. The alarm system shall consist of a display monitor located on the corridor wall near the door to the room and a visual and audible alarm which annunciates at the room and at a nurses' station or other suitable location that will provide responsible surveillance. A time delay shall be provided to allow for routine openings of doors. The alarm shall annunciate when the supply, return, or exhaust fans are interrupted ~~and~~or when ~~one of~~ the ~~following conditions is not being met during closed door conditions:~~*
~~(1) When the minimum air quantity difference of 75 cfm (35.4 L/s) required by Table 4-A is not being maintained; or~~
~~(2) When a~~ minimum required pressure differential per ASHRAE 170 ~~of 0.01 inch (0.003 kPa) of water and a minimum inward (outward for protective environment rooms) air velocity of100feet per minute (0.508 m/s) is not being maintained at the air transfer opening required by Table 4-A.~~ between the airborne infection isolation room and corridor or between the protective environment room and corridor is not being met during closed door conditions.

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417.0…[OSHPD 1, 1R, 2, 3, & 4 & 5]

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418.0…[OSHPD 1, 1R, 2, 3, & 4 & 5]

…

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419.0 Neonatal Intensive Care Units. [OSHPD 1]

419.1 Formula Preparation Area. *Air shall be supplied over the formulation preparation area by group E, nonaspirating supply diffusers. Air shall be returned or exhausted by registers located not less than 3 inches (76 mm) nor more than 8 inches (203 mm) above the finished floor in the cleanup area.*

419.2 Treatment Area/Room. *Air shall be supplied over the treatment surface by group E, nonaspirating supply diffusers. Air shall be returned or exhausted by registers located not less than 3 inches (76 mm) nor more than 8 inches (203 mm) above the finished floor, adjacent to the treatment surface.*

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TABLE 4-A
PRESSURE RELATIONSHIP AND VENTILATION REQUIREMENTS FOR GENERAL ACUTE CARE HOSPITALS, SKILLED NURSING FACILITIES, INTERMEDIATE CARE FACILITIES, CORRECTIONAL TREATMENT CENTERS, OUTPATIENT FACILITIES, AND LICENSED CLINICS

Function or Space	**Pressure Relationship to Adjacent Areas (f) (n)**	**Minimum Outdoor ach**	**Minimum Total ach**	***Minimum Total ach if 100% O.A.***	**All Room Air Exhausted Directly to Outdoors (j)**	**Air Recirculated by Means of Room Units (a)**	**Design Relative Humidity(k), %**	**Design Temperature(l), $^{o}F/^{o}C$**
~~*Administrative*~~	~~*NR*~~	~~*2*~~	~~*4*~~	~~*2*~~	~~*NR*~~	~~*NR*~~	~~*NR*~~	~~*NR*~~
Airborne infection isolation anteroom (u)	(e)	NR	10	*10*	Yes	No	NR	NR
Airborne infection isolation room (u)	Negative	2	12	*12*	Yes	No	max 60	70-75/21-24
Airborne infection isolation treatment/exam room	*Negative*	*2*	*12*	*12*	*Yes*	*No*	*NR*	*NR*
Angiography room	*Positive*	*5*	*15*	*12*	*NR*	*NR*	*NR*	*NR*
Bathing room	Negative	NR	10	*NR*	Yes	No	NR	70-75/21-24
Bathroom	Negative	NR	10	*10*	Yes	No	NR	72-78/22-26
Bedpan room	Negative	NR	10	*10*	Yes	No	NR	NR
Blood bank/tissue storage	*NR*	*2*	*6*	*6*	*NR*	*NR*	*NR*	*NR*
Blood draw/phlebotomy	*NR*	*2*	*6*	*6*	*NR*	*NR*	*NR*	*NR*
Bronchoscopy, sputum collection, and pentamidine administration (n)	Negative	2	12	*12*	Yes	No	NR	68-73/20-23
Cardiac catheterization lab	*Positive*	*5*	*20*	*12*	*NR*	*No*	*max 60*	*70-75/21-24*
Clean linen storage	Positive	NR	2	*2*	NR	NR	NR	72-78/22-26

Function or Space	Pressure Relationship to Adjacent Areas (f) (n)	Minimum Outdoor ach	Minimum Total ach	*Minimum Total ach if 100% O.A.*	All Room Air Exhausted Directly to Outdoors (j)	Air Recirculated by Means of Room Units (a)	Design Relative Humidity(k), %	Design Temperature(l), $^{o}F/^{o}C$
Clean workroom (central medical and surgical supply space)	Positive	2	4	*4*	NR	No	max 60	72-78/22-26
Clean workroom or clean holding (support)	Positive	2	4	*4*	NR	NR	NR	NR
Critical and intensive care	NR	2	6	*6*	NR	No	30-60	70-75/21-24
CT Scan	*NR*	*2*	*6*	*6*	*NR*	*NR*	*max 60*	*NR*
Darkroom (g)	Negative	2	10	*12*	Yes	No	NR	NR
Delivery room (caesarean) (m), (n), (o)	Positive	4	20	*12*	NR	No	20-60	68-75/20-24
Dialysis treatment area	NR	2	6	*6*	NR	NR	NR	72-78/22-26
Dialyzer reprocessing room	Negative	NR	10	*NR*	Yes	No	NR	NR
Dietary storage	NR	NR	2	*2*	NR	No	NR	72-78/22-26
~~*Dining room*~~	~~*NR*~~	~~*2*~~	~~*10*~~	~~*10*~~	~~*NR*~~	~~*NR*~~	~~*NR*~~	~~*NR*~~
~~*Dishwashing room*~~	~~*N*~~	~~*NR*~~	~~*10*~~	~~*NR*~~	~~*Yes*~~	~~*NR*~~	~~*NR*~~	~~*NR*~~
Electroconvulsive therapy procedure room	*P*	*3*	*15*	*10*	*NR*	*NR*	*NR*	*NR*
Emergency department exam/treatment room (p)	NR	2	6	*6*	NR	NR	max 60	70-75/21-24
Endoscope cleaning	Negative	2	10	*10*	Yes	No	NR	NR
ER decontamination	Negative	2	12	*4*	Yes	No	NR	NR
ER waiting rooms	Negative	2	12	*12*	Yes (q)	NR	max 65	70-75/21-24

Function or Space	Pressure Relationship to Adjacent Areas (f) (n)	Minimum Outdoor ach	Minimum Total ach	*Minimum Total ach if 100% O.A.*	All Room Air Exhausted Directly to Outdoors (j)	Air Recirculated by Means of Room Units (a)	Design Relative Humidity(k), %	Design Temperature(l), $^{o}F/^{o}C$
Examination room	NR	2	6	*6*	NR	NR	max 60	70-75/21-24
Fast track room	*NR*	*2*	*6*	*2*	*NR*	*NR*	*NR*	*NR*
Fluoroscopy room	*Negative*	*2*	*6*	*6*	*Yes*	*No*	*NR*	*NR*
Food preparation center (i)	NR	2	10	*10*	NR	No	NR	72-78/22-26
Gamma camera	*NR*	*2*	*6*	*6*	*NR*	*No*	*NR*	*NR*
Gastrointestinal endoscopy procedure room (x)	NR	2	6	*12*	NR	No	20-60	68-73/20-23
Hazardous material storage	Negative	2	10	*10*	Yes	No	NR	NR
Hydrotherapy	Negative	2	6	*6*	NR	NR	NR	72-80/22-27
Infusion room	*Positive*	*2*	*6*	*6*	*NR*	*NR*	*NR*	*NR*
Intermediate care (s)	NR	2	6	*6*	NR	NR	max 60	70-75/21-24
Interventional imaging procedure room	*Positive*	*5*	*15*	*12*	*NR*	*NR*	*NR*	*NR*
IV Prep. room	*Positive*	*2*	*6*	*6*	*NR*	*NR*	*NR*	*NR*
Janitor's closet, *housekeeping*	Negative	NR	10	*10*	Yes	No	NR	NR
Labor/delivery/recovery (LDR) (s)	NR	2	6	*2*	NR	NR	max 60	70-75/21-24
Labor/delivery/recovery/postpartum (LDRP) (s)	NR	2	6	*2*	NR	NR	max 60	70-75/21-24

Function or Space	Pressure Relationship to Adjacent Areas (f) (n)	Minimum Outdoor ach	Minimum Total ach	*Minimum Total ach if 100% O.A.*	All Room Air Exhausted Directly to Outdoors (j)	Air Recirculated by Means of Room Units (a)	Design Relative Humidity(k), %	Design Temperature(l), $^{o}F/^{o}C$
Laboratory, bacteriology (v)	Negative	2	6	*6*	Yes	NR	NR	70-75/21-24
Laboratory, biochemistry (v)	Negative	2	6	*6*	Yes	NR	NR	70-75/21-24
Laboratory, cytology (v)	Negative	2	6	*6*	Yes	NR	NR	70-75/21-24
Laboratory, general (v)	Negative	2	6	*6*	NR	NR	NR	70-75/21-24
Laboratory, glasswashing	Negative	2	10	*10*	Yes	NR	NR	NR
Laboratory, histology (v)	Negative	2	6	*6*	Yes	NR	NR	70-75/2 1-24
Laboratory, infectious disease and virus	Negative	2	6	*6*	Yes	NR	NR	70-75/21-24
Laboratory, media transfer (v)	Positive	2	4	*4*	NR	NR	NR	70-75/21-24
Laboratory, microbiology (v)	Negative	2	6	*6*	Yes	NR	NR	70-75/21-24
Laboratory, nuclear medicine (v)	Negative	2	6	*6*	Yes	NR	NR	70-75/21-24
Laboratory, pathology (v)	Negative	2	6	*6*	Yes	NR	NR	70-75/21-24
Laboratory, serology (v)	Negative	2	6	*6*	Yes	NR	NR	70-75/21-24
Laboratory, sterilizing	Negative	2	10	*10*	Yes	NR	NR	70-75/21-24
Lactation	*NR*	*2*	*6*	*2*	*NR*	*NR*	*NR*	*NR*
Laser eye room	Positive	3	15	*15*	NR	No	20-60	70-75/21-24
Laundry, general	Negative	2	10	*10*	Yes	No	NR	NR

Function or Space	Pressure Relationship to Adjacent Areas (f) (n)	Minimum Outdoor ach	Minimum Total ach	*Minimum Total ach if 100% O.A.*	All Room Air Exhausted Directly to Outdoors (j)	Air Recirculated by Means of Room Units (a)	Design Relative Humidity(k), %	Design Temperature(l), $^{o}F/^{o}C$
Linen and trash chute room	Negative	NR	10	*10*	Yes	No	NR	NR
Medical/anesthesia gas storage (r)	Negative	NR	8	*8*	Yes	NR	NR	NR
Medication room	NR	2	4	*2*	NR	NR	max 60	70-75/21-24
Morgues and autopsy room (n)	Negative	2	12	*12*	Yes	No	NR	68-75/20-24
MRI room	*NR*	*2*	*6*	*6*	*NR*	*NR*	*NR*	*NR*
~~*Multipurpose room*~~	~~*NR*~~	~~*2*~~	~~*6*~~	~~*6*~~	~~*NR*~~	~~*NR*~~	~~*NR*~~	~~*NR*~~
Negative-pressure x-ray room	*Negative*	*2*	*12*	*12*	*Yes*	*No*	*max 60*	*72-78/22-26*
Newborn intensive care	Positive	2	6	*6*	NR	No	30-60	72-78/22-26
Newborn intensive care formula room	*P*	*2*	*10*	*10*	*NR*	*No*	*NR*	*NR*
Newborn/*well baby* nursery suite	NR	2	6	*6*	NR	No	30-60	72-78/22-26
Nonrefrigerated body-holding room (h)	Negative	NR	10	*10*	Yes	No	NR	70-75/21-24
Nourishment area or room	NR	NR	2	*2*	NR	NR	NR	NR
Nuclear medicine (Gamma, PET, SPECT)	*Negative*	*2*	*6*	*6*	*Yes*	*No*	*NR*	*NR*
Nuclear medicine hot lab	Negative	NR	6	*6*	Yes	No	NR	70-75/21-24
Nuclear medicine treatment room	Negative	2	6	*6*	Yes	NR	NR	70-75/21-24
Nurse station (aa)	*(aa)*	*(aa)*	*2*	*2*	*(aa)*	*(aa)*	*(aa)*	*(aa)*

Function or Space	Pressure Relationship to Adjacent Areas (f) (n)	Minimum Outdoor ach	Minimum Total ach	*Minimum Total ach if 100% O.A.*	All Room Air Exhausted Directly to Outdoors (j)	Air Recirculated by Means of Room Units (a)	Design Relative Humidity(k), %	Design Temperature(l), $^{o}F/^{o}C$
Observation	*NR*	*2*	*6*	*2*	*NR*	*NR*	*NR*	*70-75/21-24*
~~*Observation/seclusion room*~~	~~*NR*~~	~~*2*~~	~~*6*~~	~~*2*~~	~~*NR*~~	~~*NR*~~	~~*NR*~~	~~*NR*~~
Occupational therapy	NR	*2*	*6*	*6*	NR	NR	NR	70-75/21-24
Operating room, *hybrid operating room* (m), (n), (o)	Positive	4	20	*12*	NR	No	20-60	68-75/20-24
Operating/surgical cystoscopic room (m), (n), (o)	Positive	4	20	*12*	NR	No	20-60	68-75/20-24
Patient corridor	NR	NR	*2*	*2*	NR	NR	NR	NR
Patient holding preparation	*NR*	*2*	*6*	*6*	*NR*	*No*	*NR*	*NR*
Patient room	NR	*2*	4 (y)	*2*	NR	NR	max 60	70-75/21-24
Pediatric play area	*NR*	*2*	*6*	*6*	*NR*	*NR*	*NR*	*NR*
Pharmacy (b)	Positive	*2*	*4*	*2*	NR	NR	NR	NR
Drug room	*NR*	*2*	*4*	*2*	*NR*	*NR*	*NR*	*NR*
HD ante room (b)	*Positive*	*NR*	*NR*	*NR*	*NR*	*NR*	*<60*	*≤68/≤20*
HD buffer room (b)	*Negative*	*NR*	*30*	*30*	*Yes*	*No*	*<60*	*≤68/≤20*
HD segregated compounding area (b)	*Negative*	*NR*	*12*	*12*	*Yes*	*NR*	*NR*	*NR*
HD storage (b)	*Negative*	*NR*	*12*	*12*	*Yes*	*NR*	*NR*	*NR*
Non-HD ante room (b)	*Positive*	*NR*	*30*	*30*	*NR*	*NR*	*<60*	*≤68/≤20*

Function or Space	Pressure Relationship to Adjacent Areas (f) (n)	Minimum Outdoor ach	Minimum Total ach	*Minimum Total ach if 100% O.A.*	All Room Air Exhausted Directly to Outdoors (j)	Air Recirculated by Means of Room Units (a)	Design Relative Humidity(k), %	Design Temperature(l), $^{o}F/^{o}C$
Non-HD buffer room (b)	*Positive*	*NR*	*30*	*30*	*NR*	*No*	*<60*	*≤68/≤20*
Non-HD segregated compounding area (b)	*NR*	*NR*	*NR*	*NR*	*NR*	*NR*	*NR*	*NR*
Physical therapy (nursing facility)	Negative	2	6	*6*	NR	NR	NR	70-75/21-24
Physical therapy (diagnostic and treatment)	Negative	2	6	*6*	NR	NR	max 65	72-80/22-27
Post-anesthesia care unit	*NR*	*2*	*6*	*6*	*Yes*	*No*	*20-60*	*70-75/21-24*
Pre-screening area	*Negative*	*2*	*12*	*12*	*Yes (g)*	*NR*	*NR*	*NR*
Procedure room (o), (d)	Positive	3	15	*12*	NR	No	20-60	70-75/21-24
Protective environment anteroom (t)	(e)	NR	10	*15*	NR	No	NR	NR
Protective environment room (t)	Positive	2	12	*15*	NR	No	max 60	70-75/21-24
Radiology waiting rooms	Negative	2	12	*12*	Yes (g), (w)	NR	max 60	70-75/21-24
Recovery room	NR	2	6	*2*	NR	No	20-60	70-75/21-24
Recreation/activity room	*NR*	*2*	*6*	*6*	*NR*	*NR*	*NR*	*NR*
Resident gathering/activity/dining (nursing facility)	NR	4	4	*4*	NR	NR	NR	70-75/21-24
Resident room (nursing facility)	NR	2	2	*2*	NR	NR	NR	70-75/21-24
Resident unit corridor (nursing facility)	NR	NR	4	*2*	NR	NR	NR	NR
Seclusion room	*NR*	*2*	*6*	*2*	*NR*	*NR*	*NR*	*NR*

Function or Space	Pressure Relationship to Adjacent Areas (f) (n)	Minimum Outdoor ach	Minimum Total ach	*Minimum Total ach if 100% O.A.*	All Room Air Exhausted Directly to Outdoors (j)	Air Recirculated by Means of Room Units (a)	Design Relative Humidity(k), %	Design Temperature(l), $^{o}F/^{o}C$
Semi-restricted corridor	*NR*	*2*	*4*	*2*	*NR*	*NR*	*NR*	*NR*
Shower room	*Negative*	*NR*	*10*	*NR*	*Yes*	*No*	*NR*	*NR*
Soiled linen sorting and storage	Negative	NR	10	*10*	Yes	No	NR	NR
Soiled or decontamination room	Negative	2	6	*4*	Yes	No	NR	72-78/22-26
Soiled workroom or soiled holding, *utility room*	Negative	2	10	*4*	Yes	No	NR	NR
Special purpose room (SNF & ICF only)	*NR*	*2*	*6*	*6*	*Yes*	*NR*	*NR*	*NR*
Speech therapy/audiology room	*NR*	*2*	*6*	*2*	*NR*	*NR*	*NR*	*NR*
~~*Staff sleep rooms*~~	~~*NR*~~	~~*2*~~	~~*4*~~	~~*2*~~	~~*NR*~~	~~*NR*~~	~~*NR*~~	~~*NR*~~
Sterile storage	Positive	2	4	*4*	NR	NR	max 60	72-78/22-26
Sterilizer equipment room	Negative	NR	10	*10*	Yes	No	NR	NR
Substerile service area	NR	2	6	~~*10*~~6	NR	No	NR	NR
Toilet room	Negative	NR	10	*10*	Yes	No	NR	NR
Trauma/cardiac room (crisis or shock) (c)	Positive	3	15	*12*	NR	No	20-60	70-75/21-24
Treatment room (surgery and critical care) (p)	NR	2	6	*6*	NR	NR	20-60	70-75/21-24
Treatment room (diagnostic and treatment) (x)	NR	2	6	*6*	NR	NR	max 60	70-75/21-24

Function or Space	Pressure Relationship to Adjacent Areas (f) (n)	Minimum Outdoor ach	Minimum Total ach	*Minimum Total ach if 100% O.A.*	All Room Air Exhausted Directly to Outdoors (j)	Air Recirculated by Means of Room Units (a)	Design Relative Humidity(k), %	Design Temperature(l), $^{o}F/^{o}C$
Triage	Negative	2	12	*12*	Yes (q)	NR	max 60	70-75/21-24
Ultrasound room	*NR*	*2*	*6*	*6*	*NR*	*NR*	*NR*	*NR*
Unsterile supply	*NR*	*2*	*2*	*2*	*NR*	*NR*	*NR*	*NR*
Waiting area (nuclear medicine)	*Negative*	*2*	*12*	*12*	*Yes*	*No*	*NR*	*NR*
Waiting area primary care clinic	*Negative*	*2*	*10*	*10*	*Yes(q)*	*NR*	*NR*	*NR*
Warewashing	Negative	NR	10	*10*	Yes	No	NR	NR
Wound intensive care (burn unit)	NR	2	6	*6*	NR	No	40-60	70-75/21-24
X-ray (diagnostic and treatment)	NR	2	6	*6*	NR	NR	max 60	72-78/22-26
X-ray (surgery/critical care and catheterization)	Positive	3	15	*12*	NR	No	max 60	70-75/21-24

Note: NR = No requirement

Notes for Table 4-A:

a. Except where indicated by a "No" in this column, recirculating room HVAC units (with heating or cooling coils) are acceptable for providing that portion of the minimum total air changes per hour that is permitted by Section 7.1 (subparagraph [a][5]). Because of the cleaning difficulty and potential for buildup of contamination, recirculating room units shall not be used in areas marked "No." Recirculating devices with HEPA filters shall be permitted in existing facilities as interim, supplemental environmental controls to meet requirements for the control of airborne infectious agents. The design of either portable or fixed systems should prevent stagnation and short circuiting of airflow. The design of such systems shall also allow for easy access for scheduled preventative maintenance and cleaning.

b. ~~*Pharmacy compounding areas may have additional air change, differential pressure, and filtering requirements beyond the minimum of this table depending on the type of pharmacy, the regulatory requirements which may include adoption of USP 797), the associated level of risk of the work (see USP [2013] in Informative Appendix B), and the equipment utilized in the spaces.*~~ *Additional air change, ISO class, differential pressure, continuous pressure monitoring and filtering requirements for compounding areas shall comply with California Board of Pharmacy regulations Title 16 §1735 & §1751, and USP <797> & <800>. Air supplied to the cleanroom suite must be introduced through 99.97% minimum HEPA filters located in the ceiling. At least 15 air changes per hour (ACPH) shall be provided to nonhazardous drug (non-HD) compounding buffer rooms through the ceiling. The HEPA filtered air from the PEC in the non-HD buffer room, when added to the HVAC-supplied HEPA-filtered air, shall increase the total HEPA-filtered ACPH to at least 30. If the PEC is used to meet the minimum total ACPH requirements, the PEC must not be turned off except for maintenance. All hazardous drug (HD) compounding areas and PECs shall be exhausted externally through 99.97% HEPA filtration. Minimum air changes shall be met under operating conditions. Returns and exhaust grilles shall be mounted low on the wall unless a visual smoke study demonstrates dilution of particles and sweeping out of particles from the entire room. One return/exhaust should be placed near the refrigerator compressor.*

c. The term *trauma room* as used herein is a first-aid room and/or emergency room used for general initial treatment of accident victims. The operating room within the trauma center that is routinely used for emergency surgery is considered to be an operating room by this standard.

d. Pressure relationships need not be maintained when the room is unoccupied.

e. See Section 7.2 *of ASHRAE 170* and its subsections for pressure-relationship requirements.

f. *For operating rooms, cardiac catheterization labs, angiography rooms, cystoscopy rooms, delivery rooms, cesarean operating rooms, newborn intensive care, intensive care units, and nurseries provide approximately 15% excess supply air to the room or a sufficient quantity of excess supply air to maintain an appropriate positive air balance based on the room tightness and number of doors. For all rooms not listed in this footnote or not listed in Section 322.0 requiring either a positive or negative air balance, provide approximately 10% differential cfm between supply and return/exhaust airflow but not less than 25 cfm differential shall be provided regardless of room size. Room function, size, and tightness may be considered when determining the differential airflow required. Where continuous directional control is not required, variations between supply cfm and return or exhaust cfm shall be minimized.*

g. All air need not be exhausted if darkroom equipment has a scavenging exhaust duct attached and meets ventilation standards regarding NIOSH, OSHA, and local employee exposure limits.[2,3]

h. A nonrefrigerated body-holding room is applicable only to facilities that do not perform autopsies on-site and use the space for short periods while waiting for the body to be transferred.

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 154.4 In some cases, excess exfiltration or infiltration to or from exit corridors compromises the exit corridor restrictions of 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. (See FGI [2010] in Informative Appendix B.)

j. In some areas with potential contamination and/or odor problems, exhaust air shall be discharged directly to the outdoors and not recirculated to other areas. Individual circumstances may require special consideration for air exhausted to the outdoors. To satisfy exhaust needs, constant replacement air from the outdoors is necessary when the system is in operation.

k. The RH ranges listed are the minimum and/or maximum allowable at any point within the design temperature range required for that space.

l. Systems shall be capable of maintaining the rooms within the range during normal operation. Lower or higher temperature shall be permitted when patients' comfort and/or medical conditions require those conditions.

m. National Institute for Occupational Safety and Health (NIOSH) criteria documents regarding occupational exposure to waste anesthetic gases and vapors, and control of occupational exposure to nitrous oxide7 indicate a need for both local exhaust (scavenging) systems and general ventilation of the areas in which the respective gases are utilized. Refer to NFPA 99 for other requirements.[8]

n. If pressure-monitoring device alarms are installed, allowances shall be made to prevent nuisance alarms. Short-term excursions from required pressure relationships shall be allowed while doors are moving or temporarily open. Simple visual methods such as smoke trail, ball-in-tube, or flutterstrip shall be permitted for verification of airflow direction.

o. Surgeons or surgical procedures may require room temperatures, ventilation rates, humidity ranges, and/or air distribution methods that exceed the minimum indicated ranges.

p. Treatment rooms used for bronchoscopy shall be treated as bronchoscopy rooms. Treatment rooms used for procedures with nitrous oxide shall contain provisions for exhausting anesthetic waste gases.

q. In a recirculating ventilation system, HEPA filters shall be permitted instead of exhausting the air from these spaces to the outdoors provided that the return air passes through the HEPA filters before it is introduced into any other spaces. The entire minimum total air changes per hour of recirculating airflow shall pass through HEPA filters. When these areas are open to larger, nonwaiting spaces, the exhaust air volume shall be calculated based on the seating area of the waiting area. (**Note:** The intent here is to not require the volume calculation to include a very large space [e.g., an atrium] just because a waiting area opens onto it.)

r. See NFPA 99 for further requirements.[8]

s. For intermediate care, labor/delivery/recovery rooms, and labor/delivery/recovery/postpartum rooms, four total ach shall be permitted when supplemental heating and/or cooling systems (radiant heating and cooling, baseboard heating, etc.) are used.

t. The protective environment airflow design specifications protect the patient from common environmental airborne infectious microbes (i.e., Aspergillus spores). *The anteroom shall have negative air pressure in relation to the protective environment room. A door louver, transfer grille, or other acceptable means ~~shall~~may be provided to allow for airflow from the protective environment room to the anteroom. The protective environment room shall have positive-pressure in relation to the anteroom and adjoining toilet room.* Recirculation HEPA filters shall be permitted to increase the equivalent room air exchanges; however, the outdoor air changes are still required. Constant-volume airflow is required for consistent ventilation for the protected environment. The pressure relationship to adjacent areas shall remain unchanged if the PE room is utilized as a normal patient room. Rooms with reversible airflow provisions for the purpose of switching between protective environment and AII functions shall not be permitted. ~~*Positive pressure in each anteroom shall be achieved by balancing the supply cfm to not less than 75 cfm (35.4 L/s) greater than the exhaust and return cfm. Positive-pressure for each protective environment room the anteroom serves shall be achieved by balancing the supply cfm to not less than 75 cfm (35.4 L/s) greater than the exhaust and return cfm.*~~

u. The AII room described in this standard shall be used for isolating the airborne spread of infectious diseases, such as measles, varicella, or tuberculosis. *The airborne infection isolation room shall have negative pressure in relation to the anteroom, and the adjoining toilet room shall have negative pressure in relation to the airborne infection isolation room.* Supplemental recirculating devices using HEPA filters shall be permitted in the AII room to increase the equivalent room air exchanges; however, the minimum outdoor air changes of Table 4-A are still required. AII rooms that are retrofitted from standard patient rooms from which it is impractical to exhaust directly outdoors may be

recirculated with air from the AII room, provided that air first passes through a HEPA filter. When the AII room is not utilized for airborne infection isolation, the pressure relationship to adjacent areas, when measured with the door closed, shall remain unchanged and the minimum total air change rate shall be 6 ach. Switching controls for reversible airflow provisions shall not be permitted. ~~*Negative pressure shall be achieved by balancing the exhaust cfm to not less than 75 cfm (35.4 L/s) greater than the supply cfm for each airborne infection isolation room the anteroom serves.*~~ *The anteroom shall have positive air pressure in relation to the airborne infection isolation room. A door louver, transfer grille, or other acceptable means* ~~*shall*~~*may be provided to allow for airflow from the anteroom to the airborne infection isolation room.*

v. When required, appropriate hoods and exhaust devices for the removal of noxious gases or chemical vapors shall be provided in accordance with NFPA 99.[8]

w. The requirement that all room air is exhausted directly to outdoors applies only to radiology waiting rooms programmed to hold patients who are waiting for chest x-rays for diagnosis of respiratory disease.

x. If the planned space is designated in the organization's operational plan to be utilized for both bronchoscopy and gastrointestinal endoscopy, the design parameters for "bronchoscopy, sputum collection, and pentamidine administration" shall be used.

y. For single-bed patient rooms using Group D diffusers, a minimum of six total ach shall be provided and calculated based on the volume from finished floor to 6 ft (1.83 m) above the floor.

z. This table is based on Table 7.1 in ASHRAE 170, "Ventilation of Healthcare Facilities", and is used with expressed written permission from ASHRAE.

aa. Nurse station pressure relationship and ventilation requirements shall match the area in which it is located.

ab. Air change per hour and ventilation rates for spaces not listed in Table 4-A may be per ASHRAE 62.1.

TABLE 4-B
FILTER EFFICIENCIES FOR CENTRAL VENTILATION AND AIR-CONDITIONING SYSTEMS IN GENERAL ACUTE CARE HOSPITALS, ACUTE PSYCHIATRIC HOSPITALS, OUTPATIENT FACILITIES, AND LICENSED CLINICS[1]

AREA DESIGNATION	*MINIMUM NUMBER OF FILTER BANKS*	*FILTER EFFICIENCY % FILTER BANK (MINIMUM EFFICIENCY REPORTING VALUE MERV)[5]*		
		NO. 1[1]	*NO. 2[1]*	*NO. 3[1]*
Orthopedic operating room, bone marrow transplant operating room, organ transplant operating room, NICU formula preparation room, NICU treatment area/room	*3*	*30%*	*90%*	*99.97%*
		(8)	*(14)*	*(17)*

…

CHAPTER 5
EXHAUST SYSTEMS

504.1 General. …
…
504.1.1 Backdraft Protection. … ***[OSHPD 1, 1R, 2, & 4 & 5]*** …
…

508.5 Supports. … ***[OSHPD 1, 1R, 2, & 4 & 5]*** …

CHAPTER 6
DUCT SYSTEMS

602.1 General. …
Exception: [OSHPD 1, 1R, 2, 3, & 4 & 5] See Section 407.4.1.3
Not permitted for [OSHPD 1, 1R, 2, 3, & 4 & 5] …
…

602.6.1 Flexible Ducts. [OSHPD 1, 1R, 2, 3, & 4 & 5] …
…

603.4.1 Length Limitation. ***[Not permitted for OSHPD 1, 1R, 2, 3, & 4 & 5]*** …
…

604.1 General. …***[OSHPD 1, 1R, 2, 3, & 4 & 5]*** …
…

604.2 [OSHPD 1, 1R, 2, 3 (surgical clinics), & 4 & 5] *…*
…

604.3 [OSHPD 1, 1R, 2, & 4 & 5] *…*
…
606.1 General. …
606.1.1 [OSHPD 1, 1R, 2, 3, & 4 & 5] *…*
…

CHAPTER 9
INSTALLATION OF SPECIFIC APPLIANCES

902.2 Combustion Air from Bedroom or Bathroom. …***[OSHPD 1, 1R, 2, & 4 & 5]*** *…*
…

911.1 Prohibited Installations. …***[OSHPD 1, 1R, 2, & 4 & 5]*** *…*
…

CHAPTER 11
REFRIGERATION

…

TABLE 1104.1
PERMISSIBLE REFRIGERATION SYSTEMS[1]

…

[OSHPD 1, 1R, 2, 3, & 4 & 5]	***I-2.1***	***Group A1 only***	***Any***	***Any***

…

CHAPTER 12
HYDRONICS

1210.2 Expansion and Contraction. …***[OSHPD 1, 1R, 2, & 4 & 5]*** *…*
…

Notation
Authority: Health and Safety Code Section 1226, 1275, 18928, 129790 and 129850; Government 11152.5
Reference: Health and Safety Code Section 129850