

# California Mechanical Code, Part 4 Potential code changes

## 320.4 Telephone and Technology Equipment Centers. [OSHPD 1, 2 & 4]

**320.4 Telephone and Technology Equipment Centers. [OSHPD 1, 2 & 4**] Where telecommunications service entrance rooms, technology equipment centers, or technology distribution rooms are provided in accordance with Section 1224.5 or 1225.5.1.1 of the California Building Code, the following requirements shall apply:

320.4.1 Power for HVAC systems serving the room(s) shall be supplied by the Equipment Branch pursuant to the California Electrical Code. Where redundant systems are provided, only one shall be required to be supplied by the Equipment Branch.

320.4.2 Mechanical equipment or fixtures that are not directly related to the support of the room shall not be installed in or pass through the room.

Exception: Unrelated ductwork may be installed and shall be not less than 10 feet (3048 mm) above the finished floor.

320.4.3 HVAC systems shall be provided to maintain environmental conditions recommended in ASHRAE's Thermal Guidelines for Data Processing Environment and the requirements of the specific equipment installed.

320.4.4(<u>Does not apply to OSHPD 2</u>) Technology equipment centers shall have redundant cooling systems each of sufficient capacity to provide required cooling during periods of breakdown or maintenance of either system. One system shall be nonhydronic and on essential power.



## SECTION 321 Essential Mechanical Provisions. [OSHPD 1, 2, 3 (Surgical Clinics only) 4 & 5]

- **321.0 Essential Mechanical Provisions. [OSHPD 1, 2, 3 (Surgical Clinics only) 4 & 5]** During periods of power outages essential electrical power shall be provided for the following equipment:
- **321.1** (Does not apply to OSHPD 3 surgical clinic.) All heating equipment and fans necessary to maintain a minimum temperature of 60 °F (15.6°) in patient areas which are not specified in Section 322.0.
- **321.2** All heating equipment and fans necessary to maintain the minimum temperatures listed in Table 4-A for sensitive areas specified in Section 322.0.
- **321.3** (<u>Does not apply to OSHPD 3 surgical clinic.</u>) Cooling equipment necessary to maintain temperature and humidity listed in Table 4-A for a minimum of one operating room and other spaces as identified in the functional program.
- 321.4 Equipment necessary for humidification of the areas listed in Section 322.0.
- **321.5** All supply, return, and exhaust fans required to maintain the positive and negative air balances as required in Table 4-A.
- **321.6** All control components, control systems and fire and smoke dampers necessary for the normal operation of equipment required to have essential electrical power.
- **321.7** Alarms for airborne infection isolation rooms and protective environment rooms.



### Section 401.0 General.

#### **401.0 General.**

**401.1 Applicability.** This chapter contains requirements for ventilation air supply, exhaust, and makeup air requirements for occupiable spaces within a building. [MOVE TO END] FOSHPD 1, 1R, 2, 3, 4 & 5] See Sections 406.0 through 419.0. [SFM] Air filters shall comply with all requirements of Part 12, Title 24, Chapter 12-71, SFM Standard 12-71-1. Spaces within buildings, except those within a dwelling unit in residential occupancies where occupants are nontransient, shall comply with Section 402.0 through Section 404.0. Requirements for ventilation air rate for dwelling units in residential occupancies, where the occupants are nontransient, shall be in accordance with Section 405.0 or ASHRAE 62.2. [RELOCATE FROM ABOVE] [[OSHPD 1, 1R, 2, 3, 4 & 5] See Sections 406.0 through 419.0.

#### 402.0 Ventilation Air.

**402.1 Occupiable Spaces.** Occupiable spaces listed in Table 402.1 shall be designed to have ventilation (outdoor) air for occupants in accordance with this chapter. **[DSA-SS]** Ventilation air requirements for occupancies regulated by the California Energy Commission are found in the California Energy Code.

[CEC] Ventilation air requirements for occupancies regulated by the California Energy Commission and found in the California Energy Code supersede those of the California Mechanical Code.

[OSHPD 1, 2, 3, 4 & 5] Health care spaces shall meet the ventilation requirements found in Table 4-A. Ventilation rates for areas not specified in Table 4-A shall have minimum ventilation and air change rates per ANSI/ASHRAE Standard 62.1. Where areas with prescribed ventilation rates in both Standards 62.1 and Table 4-A exist, the higher of the two air change rates shall be used.



**402.1.2 Ventilation in Health Care Facilities.** Mechanical ventilation for health care facilities shall be designed and installed in accordance with this code, ASHRAE/ASHE 170, and NFPA 99. **[OSHPD 1, 1R, 2, 3, 4 & 5]** Ventilation for health care facilities shall be designed and installed in accordance with this code and Table 4-A or 4-C. <u>Ventilation rates for areas not specified in Table 4-A or 4-C shall have minimum ventilation and air change rates per Section 403.0. Where areas with prescribed ventilation rates in both Section 403 and Table 4-A exist, the higher of the two air change rates shall be used. All supply-air, return air, and exhaust-air systems shall comply with this code and ASHRAE 170. When the requirements of this code conflict with ASHRAE 170, the most restrictive requirements shall prevail. The text of ASHRAE 170 shall be modified as follows:</u>

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(13) ASHRAE 170. Section 8.2 – Modify as follows: Replace reference to Table 8-2 with reference to Table 4-A 4-C.

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**402.3 Mechanical Ventilation.** *[Not permitted for OSHPD 1, 2, 3, 4 & 5]* Where natural ventilation is not permitted by this section or the *California Building Standards Code,* mechanical ventilation systems shall be designed, constructed, and installed to provide a method of supply air and either return air or exhaust air, or both, as applicable. Mechanical ventilation systems shall include controls, manual or automatic, that enable the fan system to operate wherever the spaces served are occupied. The system shall be designed to maintain minimum outdoor airflow as required by Section 403.0 under any load conditions.



- **402.4 Outdoor Air Intakes.** Ventilation system outdoor air intakes shall be designed in accordance with Section 402.4.1 through Section 402.4.5. [ASHRAE 62.1:5.5] [OSHPD 1, 2, 3, 4 & 5] Healthcare facilities shall also comply with Section 407.2.1.
- **402.4.1 Location.** Outdoor air intakes (including openings that are required as part of a natural ventilation system) shall be located such that the shortest distance from the intake to any specific potential outdoor contaminant source listed in Table 402.4.1 shall be equal to or greater than the following:
- (1) The separation distance in Table 402.4.1 or
- (2) The calculation methods in ASHRAE 62.1 Normative Appendix B and shall comply with all other requirements of this section. [ASHRAE 62.1:5.5.1]

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- 403.0 Ventilation Rates. [Not permitted for OSHPD 1, 2, 3, 4 & 5 spaces listed in Table 4-A]
- **403.1 General.** The design outdoor air intake flow rate for a ventilation system shall be determined in accordance with Section 403.2 through Section 403.10.



**403.2 Zone Calculations.** Ventilation zone parameters shall be determined in accordance with Section 403.2.1 through Section 403.2.3 for ventilation zones served by the ventilation system, except that the ventilation rates from ASHRAE/ASHE 170, shall be used for the occupancy categories, as applicable. [ASHRAE 62.1:6.2.1]

[OSHPD 1, 1R, 2, 3, 4 & 5] Ventilation and outdoor air rates shall comply with section 407.3.1.

#### **403.2.1 Breathing Zone Outdoor Airflow....**

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#### 407.3 Air Balance.

**407.3.1** The ventilation systems shall be designed and balanced to provide the general air balance relationship to adjacent areas, shown in Table 4-A. The ventilation systems shall be balanced in accordance with the latest edition of standards published by the Associated Air Balance Council (AABC), the National Environmental Balancing Bureau (NEBB), or the Testing, Adjusting and Balancing Bureau (TABB). All testing and balancing shall be performed by a qualified independent agency certified by the AABC, NEBB, or TABB. Air balance tolerancing values shall not result in noncompliance of the minimum required pressurization per Table 4-A.



407.3.1.1 Clinic spaces. Clinics compliant with California Building Code Sections 1226.6, 1226.10, 1226.11 and 1226.12 and licensed pursuant to Health and Safety Code Section 1204 shall have ventilation systems designed and balanced as shown in Table 4-C. Other licensed clinics shall be designed and balanced to provide the general air balance relationship to adjacent areas, shown in Table 4-A.

**407.3.1.2 Outside Air Calculation.** Systems serving only spaces listed in Table 4-A shall be calculated as the sum of the individual spaces defined by Table 4-A. For systems that serve spaces with ventilation rates per Section 403 and Table 4-A, the design outdoor air intake flow V<sub>ot</sub> from Section 403 shall be added to the sum of the individual spaces from Table 4-A.



Table 4-A

PRESSURE RELATIONSHIP AND VENTILATION REQUIREMENTS FOR GENERAL ACUTE CARE HOSPITALS, SKILLED

NURSING FACILITIES, INTERMEDIATE CARE FACILITIES, OUTPATIENT FACILITIES, LICENSED CLINICS,

CORRECTIONAL TREATMENT CENTERS, AND ACUTE PSYCHIATRIC HOSPITALS [OSHPD 1, 2, 3, 4 & 5]

Function of Space (ee)	Pressure Relationship (d)(n)	Minimum Outdoor ach	Minimum Total ach	Exhausted Directly to Outdoors (j)	Recirculated Room Units (a)	Unoccupied Turndown	Filtration Level (r)	Design Relative Humidity (k), %	Design Temperature (I), °F/°C
NURSING UNITS AND OTHER PATIENT CARE ARE	EAS								
All anteroom (1224.14.3.3) (u)	(e)	NR	10	Yes	No	No	<u>B</u>	NR	NR
All room (1224.14.3) (u)	Negative	2	12	Yes	No	No	<u>C</u>	Max 60	70-75/21-24
All treatment/exam room (1224.4.4.1.3)	Negative	2	12	Yes	No	No	<u>C</u>	Max 60	70-75/21-24
Cesarean Delivery room (1224.32.3.1.1) (m), (o)	Positive	4	20	NR	No	Yes	<u>B</u>	20-60	68-75/20-24
Delivery room (1224.32.3.2) (m), (o)	Positive	4	20	NR	No	Yes	<u>B</u>	20-60	68-75/20-24
Emergency department exam/treatment room (1224.33.3.6) (p)	NR	2	6	NR	NR	Yes (ff)	<u>C</u>	Max 60	70-75/21-24
Emergency department human decontamination (1224.33)	Negative	2	12	Yes	No	No	<u>C</u>	NR	NR
Emergency department public waiting area (1224.33.3.5)	Negative	2	12	Yes (q)	NR	No	E	Max 65	70-75/21-24
Emergency department trauma/resuscitation room (1224.33.3.7) (c)	Positive	3	15	NR	No	Yes	<u>C</u>	20-60	70-75/21-24
Emergency service triage area (1224.33.3.3)	Negative	2	12	Yes (q)	NR	No	E	Max 60	70-75/21-24
Fast-track area (1224.33.4.2)	NR	2	6	NR	NR	Yes	E	NR	70-75/21-24
Infusion room (1224.39.4.2.3)	Positive	2	6	NR	NR	Yes	<u>C</u>	NR	70-75/21-24
Intensive care patient space (1224.29.1.2) (gg)	NR	2	6	NR	No	Yes	<u>C</u>	30-60	70-75/21-24
Intermediate care patient room (1224.38) (s)	NR	2	6	NR	NR	Yes	<u>C</u>	Max 60	70-75/21-24
Labor/delivery/recovery (LDR) (1224.32.3.7) (s)	NR	2	6	NR	NR	Yes	<u>C</u>	Max 60	70-75/21-24
Labor/delivery/recovery/postpartum (LDRP) (1224.32.3.7) (s)	NR	2	6	NR	NR	Yes	<u>C</u>	Max 60	70-75/21-24
Lactation (1224.32.5.1.3)	NR	2	6	NR	NR	Yes	<u>C</u>	NR	70-75/21-24
Laser eye room (1224)	Positive	3	15	NR	No	Yes	<u>C</u>	20-60	70-75/21-24
Newborn intensive care (1224.29.2.6)	Positive	2	6	NR	No	Yes	<u>C</u>	30-60	72-78/22-26
Newborn intensive care formula room (1224.29.2.10)	Positive	2	10	NR	No	Yes	<u>A</u>	NR	70-75/21-24
Newborn/well baby nursery (1224.32.5)	NR	2	6	NR	No	Yes	<u>C</u>	30-60	72-78/22-26
Nourishment area or room (1224.4.4.5)	NR	NR	2	NR	NR	Yes	<u>E</u>	NR	NR
Nurse station (1224.4.4.2) (aa)	(aa)	(aa)	2	(aa)	(aa)	Yes	<u>C</u>	(aa)	(aa)
Nursery workroom (1224.32.5.1.4)	NR	2	6	NR	No	Yes	<u>C</u>	Max 60	72-78/22-26
Observation (1224.33.5.1)	NR	2	6	NR	NR	Yes	<u>C</u>	NR	70-75/21-24
Operating room (1224.15.2.1) (m)(o)	Positive	4	20	NR	No	Yes	<u>B</u>	20-60	68-75/20-24
Operating/surgical cystoscopic rooms (1224.15.2.2.1) (m), (o)	Positive	4	20	NR	No	Yes	<u>B</u>	20-60	68-75/20-24
Patient care area corridor (1224.4.7)	NR	NR	2	NR	NR	Yes	<u>C</u>	NR	NR
Patient room (1224.14.1)	NR	2	4 (y)	NR	NR	Yes	<u>C</u>	Max 60	70-75/21-24
Patient bedroom, behavioral room (1224.30.1/1228.14.1)	NR	2	2	NR	NR	Yes	E	NR	NR



Function of Space (ee)				F 4				Design	
	Pressure Relationship (d)(n)	Minimum Outdoor ach	Minimum Total ach	Exhausted Directly to Outdoors (i)	Recirculated Room Units (a)	Unoccupied Turndown	Eitration Level (r)	Relative Humidity (k), %	Design Temperature (I), °F/°C
Patient holding preparation (1224.16.2)	NR	2	6	NR	No	Yes	<u>C</u>	NR	70-75/21-24
Patient toilet room (1224.4.4.8)	Negative	NR	10	Yes	No	Yes (ff)	<u>E</u>	NR	NR
Pediatric playroom (1224.30.3.1)	NR	2	6	NR	NR	Yes	<u>C</u>	NR	70-75/21-24
Post-anesthesia care unit and recovery (1224.16.3)	NR	2	6	<del>NR.Yes</del>	No	Yes	<u>C</u>	20-60	70-75/21-24
Procedure room (1224.4.4.1.4) (o)	Positive	3	15	NR	No	Yes	<u>C</u>	20-60	70-75/21-24
Protective environment room (1224.14.4) (t)	Positive	2	12	NR	No	No	<u>A</u>	Max 60	70-75/21-24
Protective environment anteroom (1224.14.4.3) (t)	(e)	NR	10	NR	No	No	<u>A</u>	NR	NR
Radiology waiting rooms (1224.18)	Negative	2	12	Yes (q <u>).(</u> w)	NR	Yes (ff)	<u>E</u>	Max 60	70-75/21-24
Recreation/activity room (1224.31.1.11/1224.35.1)	NR	2	6	NR	NR	Yes	<u>C</u>	NR	70-75/21-24
Seclusion room (1224.4.4.1.5/1228.14.5)	NR	2	4-6	NR	NR	Yes	<u>C</u>	Max 60	70-75/21-24
Semi-restricted corridor (1224.15.1)	NR	2	4	NR	NR	No	<u>C</u>	NR	NR
Sterile processing room (1224.15.3.3)	NR	2	6	NR	No	Yes	<u>C</u>	NR	NR
Treatment room (1224.4.4.1.2)_(p)	NR	2	6	NR	NR	Yes	<u>C</u>	20-60	70-75/21-24
Waiting area primary care clinic [Relocated to Table 4-C]	<u>Negative</u>	2€	<u>12</u>	<del>Ye</del> s	<u>No</u>	<del>Yes</del>		<u>NR</u>	<del>70-75/21-24</del>
Wound intensive care (burn unit) (1224.29.1)	Positive	2	6	NR	No	Yes	<u>A</u>	40-60	70-75/21-24
DIAGNOSTIC AND TREATMENT									
Bronchoscopy, sputum collection, and pentamidine administration (1224.39.3) (n), (x)	Negative	2	12	Yes	No	Yes	<u>C</u>	NR	68-73/20-23
Cancer treatment area (1224.39.4)	NR	2	6	NR	NR	Yes	<u>E</u>	Max 60	70- 75/21-24
Class 1 imaging room (1224.18)	NR	2	6	NR	NR	Yes	<u>C</u>	Max 60	72- 78/22-26
<u>CT-Scan</u> (1224.18.3)	NR	2	6	NR	NR	Yes	<u>C</u>	Max 60	70-75/21-24
Fluoroscopy room (1224.18.1)	Negative	2	6	Yes	No	Yes	<u>C</u>	NR <u>Max</u> <u>60</u>	70-75/21-24
MRI room (1224.18.4)	NR	2	6	NR	NR	Yes	<u>C</u>	NR <u>Max</u> <u>60</u>	70-75/21-24
Negative-pressure x-ray room	Negative	2	12	Yes	No	Yes	<u>C</u>	max 60	72-78/22-26
Class 2 imaging room (1224.18.1/1224.28.4) (p)	Positive	3	15	NR	No	Yes	<u>C</u>	Max 60	70-75/21-24
Angiography room (1224.18.2)	Positive	3	15	NR	No	Yes	<u>C</u>	max 60	70-75/21-24
Cardiac catheterization lab (1224.28.2)	Positive	3	15	NR	No	Yes	<u>C</u>	max 60	70-75/21-24
Electroconvulsive therapy procedure room (1224.28.6)	Positive	3	15	NR	No	Yes	<u>C</u>	20-60	70-75/21-24
Interventional imaging procedure room (1224.28.4)	Positive	5 <u>3</u>	15	NR	No	Yes	<u>C</u>	20-60	70-75/21-24
Class 3 imaging room (1224.28.5/1224.18.1) (m), (o)	Positive	4	20	NR	No	Yes	<u>B</u>	20-60	68-75/21-24



Function of Space (ee)	Pressure Relationship (d)(n)	Minimum Outdoor ach	Minimum Total ach	Exhausted Directly to Outdoors (j)	Recirculated Room Units (a)	Unoccupied Turndown	Filtration Level (r)	Design Relative Humidity (k), %	Design Temperature (I), °F/°C
Hybrid operating room (1224.28.5) (m), (n), (o)	Positive	4	20	NR	No	Yes	<u>B</u>	20-60	68-75/20-24
Dental treatment (1226.6.1.3) [Relocated to Table 4-C]	NR	2	3	ИR	NR	Yes	MERV 13	AR	70-75/21-24
Dialysis treatment area (1224.36.2.3)	NR	2	6	NR	NR	Yes	<u>E</u>	NR	72-78/22-26
Dialyzer reprocessing room (1224.36.2.12)	Negative	NR	10(bb)	Yes	No	Yes (ff)	<u>E</u>	NR	NR
Gastrointestinal endoscopy procedure room (1224.39.3) (x)	NR	2	6	NR	No	Yes	<u>C</u>	20-60	68-73/20-23
General examination room (1224.4.4.1.1)	NR	2	4	NR	NR	Yes	<u>E</u>	Max 60	70-75/21-24
Hydrotherapy (1224.35)	Negative	2	6	NR	NR	Yes	<u>E</u>	NR	72-80/22-27
Instrument processing room (1224.39.3.2)	Negative	2	10	Yes	No	No	<u>E (qq)</u>	NR	NR
Medication preparation room (1224.4.4.1)	NR	2	4	NR	NR	Yes	<u>C</u>	Max 60	70-75/21-24
Nuclear medicine (Gamma, PET, SPECT) (1224.34.1.2)	Negative	2	6	Yes	No	No	<u>C</u>	NR	70-75/21-24
Nuclear medicine hot lab (1224.34.1.3)	Negative	NR	6	Yes	No	Yes (ff)	<u>E</u>	NR	70-75/21-24
Speech therapy room (1224.35.4)	NR	2	2	NR	NR	Yes	<u>E</u>	NR	70-75/21-24
Physical therapy (1224.35.2)	Negative	2	6	NR	NR	Yes	<u>E</u>	Max 65	72-80/22-27
Occupational therapy (1224.35.3)	NR	2	3	NR	NR	Yes	<u>E</u>	NR	70-75/21-24
Special examination room (g)	NR	2	6	NR	NR	Yes	C(ii)	Max 60	70- 75/21-24
SUPPORTSERVICES									
Blood bank/tissue storage (1224.17.2.4)	NR	2	6	NR	NR	Yes	D	NR	NR
Blood draw/phlebotomy (1224.17.3)	NR	2	6	NR	NR	Yes	D	NR	70-75/21-24
Housekeeping (1224.4.15)	Negative	NR	10	Yes	No	No	E	NR	NR
Food and supply storage (1224.20.2.3)	NR	NR	2	NR	No	No	E	NR	72-78/22-26
Food preparation areas (1224.20.2.5) (i)	NR	2	10	NR	No	Yes	E	NR	72-78/22-26
Laboratory work area, bacteriology (1224.17.2) (f), (v)	Negative	2	6	Yes	NR	Yes	<u>D</u>	NR	70-75/21-24
Laboratory work area, biochemistry (1224.17.2) (f), (v)	Negative	2	6	Yes	NR	Yes	<u>D</u>	NR	70- 75/21-24
Laboratory work area, cytology (1224.17.2) (f).(v)	Negative	2	6	Yes	NR	Yes	D	NR	70-75/21-24



Function of Space (ee)	Pressure Relationship (d)(n)	Minimum Outdoor ach	Minimum Total ach	Exhausted Directly to Outdoors (j)	Recirculated Room Units (a)	Unoccupied Turndown	Filtration Level (r)	Design Relative Humidity (k), %	Design Temperature (I), °F/°C
Laboratory work area, general (1224.17.2) (f), (v)	Negative	2	6	NR	NR	Yes	<u>D</u>	NR	70- 75/21-24
Laboratory work area, glasswashing (1224.17.2) (f)	Negative	2	10	Yes	NR	Yes	<u>D</u>	NR	NR
Laboratory work area, histology (1224.17.2) (f)(v)	Negative	2	6	Yes	NR	Yes	<u>D</u>	NR	70- 75/21-24
Laboratory work area, media transfer (1224.17.2) (f)(v)	Positive	2	4	NR	NR	Yes	<u>D</u>	NR	70-75/21-24
Laboratory work area, microbiology (1224.17.2) (f), (v)	Negative	2	6	Yes	NR	Yes	<u>D</u>	NR	70-75/21-24
Laboratory work area, nuclear medicine (1224.17.2) (f), (v)	Negative	2	6	Yes	NR	Yes	<u>D</u>	NR	70-75/21-24
Laboratory work area, pathology (1224.17.2) (f), (v)	Negative	2	6	Yes	NR	No	<u>D</u>	NR	70-75/21-24
Laboratory work area, serology (1224.17.2) (f), (v)	Negative	2	6	Yes	NR	Yes	<u>D</u>	NR	70-75/21-24
Laboratory work area, sterilizing (1224.17.2) (f)	Negative	2	10	Yes	NR	Yes	<u>D</u>	NR	70-75/21-24
Pharmacy Services: Pharmacy Areas (1224.19.2) (b)	Positive	2	4	NR	NR	Yes	<u>C</u>	Max 60	70-75/21-24
Drug room (1224.19.1.2.1)	NR Positive	2	4	NR	NR	Yes	<u>C</u>	NR	70-75/21-24
HD ante room (1224.19.3.3.3) (b)	Positive	NR (dd)	30	NR	NR	NR	A	<60	≤68/≤20
HD buffer room (1224.19.3.3.2) (b)	Negative	NR (dd)	30	Yes	No	NR	A	<60	≤68/≤20
HD SCA (1224.19.3.3.4) (cc)	Negative	NR (dd)	12	Yes	NR	NR	<u>E</u>	NR	NR
HD storage (1224.19.3.3) (b)	Negative	NR (dd)	12	Yes	NR	NR	<u>C</u>	NR	NR
Non-HD ante room (1224.19.3.2.3) (b)	Positive	NR (dd)	30 20	NR	NR	NR	<u>A</u>	<60	≤68/≤20
Non-HD buffer room (1224.19.3.2.2) (b)	Positive	NR (dd)	30	NR	No	NR	<u>A</u>	<60	≤68/≤20
Non-HD SCA (1224.19.3.2.4) (dd)	NR	NR (dd)	NR	NR	NR	NR	<u>E</u>	NR	NR
Toilet room (1224.4.4.8)	Negative	NR	10	Yes	No	Yes	<u>E</u>	NR	72-78/22-26
Warewashing (1224.20.2.10) (r)	Negative	NR	10	Yes	No	Yes	<u>E</u>	NR	NR
SUPPORT SERVICES: STERILE PROCESSING									
Clean assembly/workroom (1224.22.1) (z)	Positive	2	4	NR	No	No	<u>C</u>	Max 60	68-73/20-23
Soiled workroom/decontamination room (1224.22.1) (z)	Negative	2	6	Yes	No	No	<u>E</u>	NR	60-73/16-23
Sterile storage room (clean/sterile medical/ surgical supplies) (1224.22.1) (z)	Positive	2	4	NR	NR	No	<u>C</u>	Max 60	Max 75/24
One-room sterile processing (1224.22)	NR	2	6	NR	No	No	<u>C</u>	NR	NR
Sterilizing equipment room	<u>Negative</u>	<u>NR</u>	<u>10</u>	<u>Yes</u>	<u>No</u>	<u>No</u>	<u>E</u>	<u>NR</u>	<u>NR</u>



Function of Space (ee)	Pressure Relationship (d)(n)	Minimum Outdoor ach	Minimum Total ach	Exhausted Directly to Outdoors (j)	Recirculated Room Units (a)	Unoccupied Turndown	Filtration Level (r)	Design Relative Humidity (k), %	Design Temperature (I), °F/°C		
Clean receiving (1224.22.1) (z)	<u>NR</u>	<u>NR</u>	<u>4</u>	<u>NR</u>	<u>No</u>	<u>No</u>	<u>C</u>	<u>NR</u>	<u>NR</u>		
OTHER GENERAL SUPPORT SERVICES											
Morgues and Autopsy room (1224.24)	Negative	2	12	Yes	No	No	<u>E</u>	NR	68-75/20-24		
Clean linen storage room (1224.27 & 1224.14.2.9)	Positive	NR	2	NR	NR	Yes	<u>C</u>	NR	72–78/22–26		
Hazardous material storage (1224.4.14)	Negative	2	10	Yes	No	No	<u>E</u>	NR	NR		
Laundry, processing room (1224.27)	Negative	2	10	Yes	No	No	<u>E</u>	NR	NR		
Linen and refuse chute room (1224.27 & 1224.4.14)	Negative	NR	10	Yes	No	No	<u>E</u>	NR	NR		
Nonrefrigerated body holding room (1224.24) (h)	Negative	NR	10	Yes	No	No	<u>E</u>	NR	70-75/21-24		
Regulated waste holding spaces (1224.4.14)	Negative	NR	10	Yes	No	No	<u>E</u>	NR	NR		
Unsterile supply (1225.4.5.2.4)	NR	2	2	NR	NR	No	E	NR	NR		
SUPPORT AREAS FOR NURSING UNITS AND OTHER PATIENT CARE AREAS											
Clean supply room (1224.4.4.6.1)	Positive	NR	2	NR	NR	Yes	<u>C</u>	NR	NR		
Clean utility/workroom (1224.4.4.6)	Positive	2	4	NR	NR	Yes	C	NR	NR		
Soiled utility/workroom or soiled holding (1224.4.4.7)	Negative	2	10	Yes	No	No	<u>E</u>	NR	NR		
BEHAVIORAL HEALTH							_				
Patient bedroom, resident room (1228.14.1.2)	NR	2	<u>4</u>	<u>NR</u>	<u>NR</u>	<u>Yes</u>	E	<u>NR</u>	70-75/21-24		
Seclusion room (1228.14.5)	NR	2	4	<u>NR</u>	NR	Yes	E	<u>NR</u>	70-75/21-24		
Resident Group/multipurpose/activity/dining (1228.14.9)	<u>NR</u>	2	<u>4</u>	<u>NR</u>	<u>NR</u>	Yes	<u>E</u>	<u>NR</u>	70–75/21–24		
SKILLED NURSING AND INTERMEDIATE CARE FA	ACILITIES										
All room (1225.4.1.9) (b)	Negative	2	12	Yes	No	Yes	<u>D</u>	Max 60	70-78/21-29		
All_anteroom (1225.4.1.9) (b)	Negative	NR	10	Yes	No	Yes	<u>D</u>	Max 60	70-78/21-29		
Nurse station (aa)	(aa)	(aa)	2	(aa)	(aa)	(aa)	<u>D</u>	(aa)	(aa)		
Resident living/activity/dining (1225.5.1.4/1225.5.2.5.1)	NR	<u>42</u>	4	NR	NR	Yes	<u>D</u>	Max 60	70-78/21-29		
Recreation/activity room (1225.5.1.4)	NR	2	6	NR	NR	Yes	<u>D</u>	NR	70-75/21-24		
Resident room (1225.5.1.2.1/1225.5.2.3)	NR	2	2	NR	NR	Yes	<u>D</u>	Max 60	70-78/21-29		
Resident corridor (1225.5.1.1)	NR	NR	4	NR	NR	Yes	<u>D</u>	NR	70-78/21-29		
Special purpose room (1225.4.1.8)	NR	2	6	Yes	NR	Yes	<u>D</u>	Max 60	70-75/21-24		
Shower room (1224.14.2.14)	Negative	NR	10	Yes	No	No	<u>D</u>	NR	70-75/21-24		
Toilet/bathing room (1225.4.1.6)	Negative	NR	10	Yes	No	No	<u>D</u>	NR	70-78/21-29		



Function of Space (ee)	Pressure Relationship (d)(n)	Minimum Outdoor ach	Minimum Total ach	Exhausted Directly to Outdoors (j)	Recirculated Room Units (a)	Unoccupied Turndown	Filtration Level (r)	Design Relative Humidity (k), %	Design Temperature (I), °F/°C
SERVICE	•					•	_		
Clean linen storage (1225.4.5.2.1)	Positive	NR	2	NR	NR	No	<u>D</u>	NR	72-78/22-26
Dietary storage (1225.4.2.2.10)	NR	NR	2	NR	No	No	E	NR	72-78/22-26
Food preparation center (1225.4.2.2.3) (i)	NR	2	10	NR	No	Yes	E	NR	72-78/22-26
Hair salon (1225.6)	Negative	NR	10	Yes	NR	Yes	E	NR	70-78/21-29
Laundry, central and personal (1225.4.7/1225.5.2.5.7)	Negative	2	10	Yes	No	No	<u>E</u>	NR	NR
Linen and trash chute room (1225.4.7)	Negative	NR	10	Yes	No	No	<u>E</u>	NR	NR
Medication preparation room (1225.4.1.1.1)	NR	2	4	NR	NR	Yes	<u>D</u>	Max 60	70-75/21-24
Soiled linen sorting and storage (1225.4.7)	Negative	NR	10	Yes	No	No	E	NR	NR
Unsterile supply (1225.4.5.2.4)	NR	2	2	NR	NR	No	E	NR	NR
Warewashing (1225.4.2.2.7)	Negative	NR	10	Yes	No	Yes	E	NR	NR
SUPPORT SPACE	•					•		•	
Clean utility room (1225.4.1.3.1)	Positive	2	4	NR	NR	No	<u>D</u>	NR	NR
Hazardous waste storage (1225)	Negative	2	10	Yes	No	No	E	NR	NR
Housekeeping room (1225.4.6) (j)	Negative	NR	10	Yes	NR	No	<u>E</u>	NR	NR
Soiled utility/workroom or soiled holding (1225.4.1.3.2)	Negative	2	10	Yes	No	No	<u>E</u>	NR	NR



d. For operating rooms, cardiac catheterization labs, angiography rooms, cystoscopy rooms, delivery rooms, cesarean operating rooms, newborn intensive care, and class 3 imaging 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 in accordance with Section 407.4.1.3407.4.2.

. . .

r. Exhaust rate shall meet or exceed local requirements. <u>Table entries are the minimum filter levels</u> required for the space. Refer to Table 4-B for filtration level requirements. Operating rooms listed in <u>Table 4-B for special procedures shall provide filtration level A with HEPA filtration.</u>

. . .

dd. The requirements for the non-HD segregated compounding area shall meet the minimum requirements for the room which it is located. <u>Outside air change rates for compounding spaces shall comply with Section 403.</u>



# TABLE 4-C <u>PRESSURE RELATIONSHIP</u> AND VENTILATION REQUIREMENTS FOR LICENSED CLINICS

TABLE 4-C

FILTER EFFICIENCIES FOR CENTRAL VENTILATION AND AIR-CONDITIONING SYSTEMS IN SKILLED NURSING FACILITIES, INTERMEDIATE CARE FACILITIES AND CORRECTIONAL TREATMENT CENTERS<sup>1</sup> [OSHPD 2 & 4]

■ Filtration-Level	AREA-DESIGNATION	MINIMUM- NUMBER-OF FILTER- BANKS	(MINIMUM-EFFIC	-MERV) <sup>3</sup>
		DANTO	NO.:1 <sup>1</sup>	NO2 <sup>1</sup>
-	All ·areas ·for ·inpatient ·care , ·treatment · and/or ·diagnosis , ·and ·those ·areas ·	2	30%	80%
<u>C</u>	providing-direct-service-or-cleaning- supplies	<b>∠</b>	<del>(8)</del>	<del>(13)</del>
E	Administrative, bulk storage, soiled holding, laundries and food prepareas	4 <sup>4</sup>	30%	_
€	morang, <u>manang</u> ana maa prop areas	+'	<del>(8)</del>	_



## TABLE 4-C PRESSURE RELATIONSHIP AND VENTILATION REQUIREMENTS FOR LICENSED CLINICS [OSHPD 3]

		ach Desi	gn Option							Rp-Ra Air-Class Design Option		
Function of Space (b) (f)	Pressure Relationship (d) (n)	Minimum Outdoor ach (q)	Minimum Total ach (q)	Exhausted Directly to Outdoors (j)	Recirculated Room Units (a)	Unoccupied Turndown	Filter Level (c)	Design Relative Humidity (i), %	Design Temperature °F/°C (k)	Air Class (q)	Rp cfm/person Min. Space Pop. (q)	Ra cfm/ft (q)
GENERAL DIAGNOSTIC AND TREATMENT												
Birthing room (1226.11.1.1)	NR	2	3	NR (h)	NR	Yes	С	Max 60	70-75/21-24	2	10/4	0.18
Clinic urgent exam/treatment (1226.6.1) (e)	NR	2	3	NR	NR	Yes	E	NR	70-75/21-24	2	7.5/3	0.12
Urgent care-treatment (e)	NR	2	3	NR	NR	Yes	E	NR	70 75/21 24	2	7.5/3	0.12
Urgent care triage	NR	2	3	NR	NR	Yes	E.	NR	70 75/21 24	2	7.5/3	0.12
Clinic observation (1226.6)	NR	2	2	NR	NR	Yes	E	NR	70-75/21-24	2	7.5/3	0.12
Waiting area primary care clinic (1226.6.5.1.2) (g)	<u>Negative</u>	2	<u>12</u>	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>E</u>	<u>NR</u>	<u>70-75/21-24</u>	3	-	-
General examination room (1226.4.1.1)	NR	2	2	NR	NR	Yes	Е	NR	70-75/21-24	1	7.5/3	0.12
Laboratory work room (1226.4.2.4) (I)	NR	2	3	NR (h)	NR	Yes	E	NR	70-75/21-24	2	7.5/3	0.12
Medication room (1226.6.2.2)	NR	2	2	NR	NR	Yes	E	Max 60	70-75/21-24	1	5/2	0.18
Class 1 Imaging rooms (1226.6) (g)	NR	2	3	NR	NR	Yes	Е	Max 60	72-78/22-26	1	7.5/3	0.12
Psychiatric examination room (1226.12)	NR	2	3	NR	NR	Yes	E	NR	70-75/21-24	1	5/2	0.06
Psychiatric consultation room (1226.12)	NR	2	3	NR	NR	Yes	Е	NR	70-75/21-24	1	5/2	0.06
Psychiatric group room (1226.12)	NR	2	3	NR	NR	Yes	Е	NR	70-75/21-24	1	5/2	0.06
Psychiatric seclusion room (1226.12)	NR	2	2	NR	NR	Yes	Е	NR	70-75/21-24	2	10/3	0.12
ECT procedure room	NR	2	3	NR	NR	Yes	E	NR	70-75/21-24	1	7.5/3	0.12
Physical therapy individual room (1226.10.5.1)	NR	2	3	NR (h)	NR	Yes	E	NR	70-75/21-24	2	10/3	0.12
Physical therapy exercise area (1226.10.5.3)	NR	2	3	NR (h)	NR	Yes	E	NR	70-75/21-24	2	10/3	0.18



		ach Desi	gn Option							Rp-Ra Air-Cl	ass Design Opt	ion
Function of Space (b) (f)	Pressure Relationship (d) (n)	Minimum Outdoor ach (q)	Minimum Total ach (q)	Exhausted Directly to Outdoors (j)	Recirculated Room Units (a)	Unoccupied Turndown	Filter Level (c)	Design Relative Humidity (i), %	Design Temperature °F/°C (k)	Air Class (q)	Rp cfm/person Min. Space Pop. (q)	Ra cfm/ft (q)
Hydrotherapy <u>(1226.10.5)</u>	Negative	2	3	Yes	NR	Yes	E	NR	72-80/22-27	3	20/2	0.12
Physical therapeutic pool (1226.10.5)	Negative	2	10	Yes	NR	Yes	Е	NR	72-80/22-27	3		0.48
Speech therapy room (1226.10.7)	NR	2	2	NR	NR	Yes	Е	NR	70-75/21-24	1	5/2	0.06
Occupational therapy (1226.10.6)	NR	2	3	NR	NR	Yes	Е	NR	70-75/21-24	1	5/2	0.06
Prosthetics and orthotics room (1226.10)	NR	2	3	NR	NR	Yes	Е	NR	70-75/21-24	2	10/3	0.18
Dental treatment (1226.6.7) (e)	NR	2	3	NR	NR	Yes	Е	NR	70-75/21-24	1	10/3	0.18
Other dental treatment areas (1226.6.7.2) (e)	NR	2	3	NR	NR	Yes	Е	NR	70-75/21-24	1	5/2	0.06
Toilet room (1226.9.4.1)	Negative	NR	4 (r)	Yes	No	No	Е	NR	NR	3		
SERVICE /SUPPORT SPACE												
Environmental services lovsekeeping room (1226.4.11)	Negative	NR	6	Yes	No	No	Е	NR	NR	3		
Clean supply halding (1226.4.13.3) (m) (n)	NR	2	2	NR	NR	Yes	Е	NR	NR	1	5/2	0.12
Soiled holding (1226.4.13.4) (m) (o) (p)	Negative	NR	6	Yes	No	No	Е	NR	NR	3	5/2	0.12



*Table 4-C* is based on ASHRAE Standard 170-2021, "Ventilation of Healthcare Facilities," Table 8-2 with amendments, and it is used with expressed written permission from ASHRAE. **Copyright notice for ASHRAE Standards** ©ASHRAE, www.ashrae.org. 2021 ASHRAE Standard-170.

- 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-8.2(a)(5) 407.4.5. Because of the cleaning difficulty and potential for buildup of contamination, recirculating room units shall not be used in areas marked "No."
- b. Examination rooms (identified as "specialty infection control [IC] exam rooms") programmed for use by patients with undiagnosed gastrointestinal symptoms, undiagnosed respiratory symptoms, or undiagnosed skin symptoms. Functions not specifically identified in this table shall be in accordance with the ventilation requirements found in Table 4-A.
- c. Table entries are the minimum filter efficiencies required for the space. Refer to Section 6.4 <u>Table 4-B</u> of this document for further clarification of filtration requirements. The minimum efficiency reporting value (MERV) is based on the method of testing described in ASHRAE Standard 52.2 (*Informative Note:* ASHRAE [2012] in Informative Appendix E).
- d. Pressure monitoring devices are not required for any spaces indicated in Table 8-2. Simple visual methods such as ball-in-tube or flutterstrip are suggested should pressurization verification of air-flow direction be desired or required by others. 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 in accordance with Section 407.4.2.
- e. Treatment rooms used for procedures with nitrous oxide shall contain provisions for exhausting anesthetic waste gases, and the minimum total air changes shall be increased to 6. When this condition occurs the *Rp-Ra* air-class design option cannot be used.
- f. Informative Note: Parenthetic notations following a space name are paragraph references to the relevant FGI Guidelines (FGI 2018a, 2018b, 2018c) in Informative Appendix E California Building Code sections from Chapter 12. These paragraph references are provided to the user to aid in the application of design requirements.
- g. Refer to Table 8-1 under the space type "Diagnostic imaging waiting" for space ventilation requirements in an instance where a facility proposes an imaging waiting area and their ICRA determines that the imaging waiting area requires special consideration to reduce the risk of airborne infection transmission. <u>The requirement that all room air be exhausted directly to outdoors applies only to waiting rooms programmed to hold patients who are waiting for diagnosis of respiratory disease. Other waiting room ventilation requirements may comply with Section 403.</u>
- h. In some areas with potential contamination and/or odor concerns, exhaust air shall be discharged to the outdoors and not recirculated to other areas.



- i. The relative humidity (RH) ranges listed are the minimum and/or maximum allowable at any point within the design temperature range required for that space.
- j. Unless otherwise noted in (h) above, the exhaust rate shall meet or exceed minimum total air change requirement.

  Where the "exhaust directly to Outdoors" column is marked yes, all exhaust air shall be discharged directly to the outdoors and not recirculated to other areas. Recirculation room units may be provided where the column is marked yes provided air is not recirculated to other areas. To satisfy exhaust needs, constant replacement air from the outdoors is necessary when the system is in operation.
- k. 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.
- I. This room is intended for basic blood and urine specimen testing and short-term storage only. Outpatient facilities that provide the following specialized service spaces/rooms should consult Table 7-1 4-A for ventilation requirements: laboratory work areas, including the specialty lab services such as bacteriology, biochemistry, cytology, glasswashing, histology, media transfer, microbiology, nuclear medicine, pathology, serology, and/or sterilizing.
- m. Outpatient facilities that provide the following specialized service spaces/rooms should consult Table 8–1 <u>4-A</u> for ventilation requirements: laundry, general, and soiled linen sorting and storage.
- n. Refer to Table 8–1 <u>4–A</u> under the space type "Clean <u>utility/</u>workroom or clean supply" for space ventilation requirements if a clean workroom space is provided.
- o. Refer to Table 8–1 <u>4-A</u> under the space type "Soiled <u>utility/</u>workroom or soiled holding" for space ventilation requirements if a soiled workroom space is provided.



- p. This space is permitted to include hazardous material storage (general medical waste). If actual regulated waste holding is anticipated, refer to Table 8–1 <u>4-A</u> under the space type "Regulated waste holding" for ventilation requirements.
- q. See Section 8.2(a)(6) and 8.2(a)(8). For ventilation systems using the air class design option the requirements of Section 403 shall be met. The design zone population (Pz) shall equal the largest (peak) number of people expected to occupy the room/space during typical use. For Multiple-Zone Recirculating Systems and Variable air Volume systems the minimum primary airflow (Vpz-min) for each zone shall be determined by the equation Vpz-min =  $Voz \times 1.5$ .
- r. If this space uses unoccupied turndown, it shall include time-delay controls such that turndown does not occur for the first 20 minutes after the space becomes unoccupied. (Informative Note: The 20 minute delay approximates the time required for 90% reduction in airborne contamination at 6 ach, assuming perfect mixing.) Toilet exhaust shall not be less than 70cfm/water closet.



### Section 408.0 Filters.

#### 408.2 Filters for Hospitals.

**408.2.1** All air-ventilation systems shall comply with code requirements of this section and shall have filter bank efficiencies as listed in Table 4-B. The filtration level for each space shall meet the minimum level as indicated in Table 4-A.

#### 408.3 Filters for Skilled Nursing Facilities, Intermediate Care Facilities, and Correctional Treatment Centers

**408.3.1** The air ventilation systems for skilled nursing facilities, intermediate care facilities and correctional treatment centers shall have filter bank efficiencies as listed in Table 4-C. <u>The filtration</u> level for each space shall meet the minimum level as indicated in Table 4-A.

408.3.2...

#### 408.4 Filters for Outpatient Facilities

**408.4.1** The air ventilation systems for outpatient facilities shall have filter bank efficiencies as listed in Table 4-B. The filtration level for each space shall meet the minimum level as indicated in Table 4-A.

#### 408.5 Filters for Recirculating Room Units.

**408.5.1** Filters for recirculating room units shall comply with Section 407.4.5. Where Table 4-A does not permit air recirculated by means of room units, room units with <u>a</u> filtration <u>level</u> per Table 4-BA are permitted.

..

#### 415.0 Protective Environment Rooms. [OSHPD 1, 2, 3, 4 & 5]

415.1 Air Distribution. The supply outlets and exhaust and return inlets shall be located to provide airflow patterns that prevent stagnation of the air and eliminate short circuiting of the supply to the exhaust or return. Supply air shall be delivered at or near the ceiling and near the patient's bed. <u>HEPA filtration shall be provided in the supply air diffuser.</u> All exhaust or return registers shall be located near the entrance to the protective environment room and not less than 3 inches (76 mm) nor more than 8 inches (203 mm) above the finished floor.

**Exception:** For correctional treatment centers, the location and design of the supply outlets and exhaust or return inlets shall not compromise the safety, security, and protection of staff, inmates and property.



## Section 505.0 Product-Conveying Systems.

505.0 Product-Conveying Systems.

505.12 Pharmacies – Compounding Area of Parenteral Solutions. [CA – Board of Pharmacy]...

...

**505.13** [Formerly 507.7] Pharmaceutical <u>Hazardous Drug(HD)</u> Compounding Exhaust Discharge. [OSHPD 1, 2, 3, 4 & 5] Exhaust discharge from fans serving the <u>HD</u> compounding suite shall extend at least 710 feet (21343048 mm) above the roof and discharge vertically upward. Self-draining stacks or equivalent shall be used for rain protection. Rain caps which divert the exhaust toward the roof shall be prohibited.

. . .

Part II - Commercial Hoods and Kitchen Ventilation. 507.0 General Requirements.

. . .

507.7 Pharmaceutical Compounding Exhaust Discharge... [Relocate to 505.13]

**CHAPTER 5** 



### Section 508.4 Supports.

**508.4 Supports.** Hoods shall be secured in place to resist the lateral loads *[OSHPD 1, 1R, 2, 4 & 5]* to resist the lateral loads given in the California Building Code, Title 24, Part 2 by noncombustible supports. The supports shall be capable of supporting the expected weight of the hood plus 800 pounds (362.9 kg).



### Section 602.0 Material.

602.0 Material.

**602.1 General.** Materials used for duct systems shall comply with Section 602.2 through Section 602.6 as applicable.

Exception: [OSHPD 1, 1R, 2, 3, 4 & 5] See Section 407.4.2.

[Not permitted for OSHPD 1, 1R, 2, 3, 4 & 5] Concealed building spaces or independent construction within buildings shall be permitted to be used as ducts or plenums. Gypsum board shall not be used for positive pressure ducts.

**Exception:** In healthcare facilities, concealed spaces shall not be permitted to be used as ducts or plenums. [OSHPD 1, 1R, 2, 3, 4 & 5] See Section 407.4.2.



TABLE 4-B

FILTER EFFICIENCIES FOR CENTRAL VENTILATION AND AIR-CONDITIONING SYSTEMS IN GENERAL ACUTE CARE HOSPITALS, <u>SKILLED NURSING</u>

FACILITIES, INTERMEDIATE CARE FACILITIES, OUTPATIENT FACILITIES, LICENSED CLINICS, <u>CORRECTIONAL TREATMENT CENTERS</u> AND ACUTE

PSYCHIATRIC HOSPITALS <sup>1</sup> [OSHPD 1, 2, 3, 4, & 5]

		MINIMUM					
Filtration Level	AREA DESIGNATION	NUMBER OF		MINIMUM EFFICIENCY REPLYALUE MERV)56  O. 1 <sup>1</sup> NO. 2 <sup>1</sup> 30% 90%  (8) (14)  30% 95%  (8) (16)  30% 90%  (8) (11)  30% 90%  (8) (13)  30% 90%  (14)  30% 90%  (14)  30% 90%  (14)  30% 90%  (14)  30% 90%  (15)  (14)  30% 90%  (14)  30% 90%  (14)  30% 90%  (14)  30% 90%  (14)			
		FILTER BANKS	NO. 1 <sup>1</sup>	NO. 2 <sup>1</sup>	A.T.D. <sup>2</sup>		
	Orthopedic operating room, bone marrow transplant operating room, organ transplant operating room,		30%	90%	99.97%4		
<u>A</u>	NICU formula preparation room, NICU treatment area/room, protective environment rooms <sup>5</sup>	3	(8)	(14)	HEPA <sup>3</sup>		
	Protective environment rooms	2	30%	90%	99.97% <sup>5</sup>		
		3	<del>(8)</del>	(14)	HEPA <sup>3</sup>		
	Operating room, operating/surgical cystoscopic room, cesarean operating room,	2	30%	95%	=		
<u>B</u>	2	(8)	(16)	=			
	Angiography; cardiac catheterization labs class 1 and 2 imaging; interventional imaging procedure rooms; delivery rooms, nurseries; patient care, treatment, exam, cystoscopy, diagnostic, and	30% 90%		_			
<u>C</u>	related areas; airborne infection isolation rooms; areas providing direct patient service or clean supplies such as sterile and clean processes, and patient area corridors	2	(8)	EFFICIENCY REPORT   NO. 2 <sup>1</sup>   A.   90%   99     (14)   H.   95%   (16)   90%     (14)     41     (14)     (1	_		
	Laboratories, all areas for skilled nursing		30%	80%			
<u>D</u>	inpatient care, treatment and/or diagnosis, and those areas providing direct service or cleaning supplies	2	(8)	(13)			
	Outpatient, Aadministrative, med staff support areas, bulk storage, soiled holding areas, food		80%	_	_		
<u>E</u>	preparation areas, public cafeterias, and laundries, psychiatric hospitals intended for the care and treatment of inpatients who do not require acute medical services	1 <sup>7</sup>	(13)	_	_		
	Psychiatric hospitals intended for the care and treatment of inpatients who do not require	<b>1</b> <sup>7</sup>	80%	_	_		
	acute medical services		<del>(13)</del>	_	_		



		MINIMUM NUMBER OF	### FILTER EFFICIENCY % FILTER LOCAT  (MINIMUM EFFICIENCY REPORTING VALUE MERV) 56    NO. 1					
Filtration Level	AREA DESIGNATION		1 '	-				
		FILTER BANKS	NO. 11	NO. 21	A.T.D. <sup>2</sup>			
	Laboratories, all areas for skilled nursing		30%	80%				
<u>D</u>	inpatient care, treatment and/or diagnosis, and those areas providing direct service or cleaning supplies	2	(8)	(13)				
	Outpatient, Aadministrative, med staff support areas, bulk storage, soiled holding areas, food		80%	_	_			
<u>E</u>	preparation areas, public cafeterias, and laundries, psychiatric hospitals intended for the care and treatment of inpatients who do not require acute medical services	17	(13)	_	_			
	Psychiatric hospitals intended for the care and treatment of inpatients who do not require	1 <sup>7</sup>	80%	_	_			
	acute medical services	7	(13)	_	_			



<sup>&</sup>lt;sup>4</sup> HEPA filters shall be located in the air terminal device of the room served.

<sup>&</sup>lt;sup>5</sup> HEPA filters shall be located in the air terminal device of the room served. HEPA filters shall be permitted to be located in the air handling unit subject to the exception in ASHRAE 170, Section 7.2.2(c). HEPA filter installation shall be designed and equipped to permit safe removal, disposal and replacement of filters.

#### TABLE 4-C [See ET Table 4-C new]

## FILTER EFFICIENCIES FOR CENTRAL VENTILATION AND AIR-CONDITIONING SYSTEMS IN SKILLED NURSING FACILITIES, INTERMEDIATE CARE FACILITIES AND CORRECTIONAL TREATMENT CENTERS<sup>1</sup> [OSHPD 2 & 4]

		MINIMUM		CIENCY % FILTER CATION M EFFICIENCY G VALUE MERV) <sup>3</sup> NO. 2 <sup>1</sup> 80%			
Filtration Level	AREA DESIGNATION	NUMBER OF	,				
		FILTER BANKS	NO. 1 <sup>1</sup>	NO. 2 <sup>1</sup>			
	All areas for inpatient care, treatment and/or diagnosis, and those areas providing direct service or cleaning		30%	80%			
<u>&amp;</u>	supplies	2	<del>(8)</del>	<del>(13)</del>			
E	Administrative, bulk storage, soiled holding, laundries and food prep areas	<b>1</b> <sup>4</sup>	30%	_			
<u>=</u>		7	<del>(8)</del>	_			

