

**EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT**

**REGARDING PROPOSED CHANGES TO
CALIFORNIA MECHANICAL CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 4**

LEGEND FOR EXPRESS TERMS

1. Existing California amendments or code language being modified: All such language appears in *italics*, modified language is underlined.
2. Repealed text: All such language appears in ~~strikeout~~.

EXPRESS TERMS

**CHAPTER 1
ADMINISTRATION
DIVISION I
CALIFORNIA ADMINISTRATION**

Adopt entire 2013 Uniform Mechanical Code (UMC) Chapter and carry forward existing amendments of the 2010 California Mechanical Code (CMC) for OSHPD 1, 2, 3 & 4.

NOTATION:

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

Reference: Health and Safety Code Section 129850

**CHAPTER 2
DEFINITIONS**

Adopt entire 2012 Uniform Mechanical Code (UMC) Chapter and carry forward existing amendments of the 2010 California Mechanical Code (CMC) for OSHPD 1, 2, 3 & 4 with the following modifications:

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OSHPD 3SE. *This is a subcategory of OSHPD 3. OSHPD 3SE facilities have exemptions from selected requirements in the California Mechanical Code. OSHPD 3SE classification consists of the following facility types:*

(1) Outpatient Clinical Services that do not provide:

(a) Radiological imaging service.

(b) Gastrointestinal endoscopy.

(c) Cancer treatment/infusion therapy.

(d) Nuclear medicine.

(e) Radiation therapy.

(f) For services not listed, contact OSHPD.

(2) Primary Care Clinics that do not provide abortion services.

(3) Rehabilitation Clinics.

(4) Psychology Clinics.

The following clinics shall not be considered OSHPD 3SE:

(1) Surgical Clinics.

(2) Chronic Dialysis Clinics.

(3) Alternative Birthing Centers.

(4) Clinics that require positive or negative pressure in patient treatment spaces (per California Mechanical Code, Table 4-A).

NOTATION:

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

Reference: Health and Safety Code Section 129850

CHAPTER 3 GENERAL REQUIREMENTS

Adopt entire 2012 Uniform Mechanical Code (UMC) Chapter and carry forward existing amendments of the 2010 California Mechanical Code (CMC) for OSHPD 1, 2, 3 & 4 with the following modifications:

315.1.1 *The systems shall be designed to provide the temperatures and relative humidity for sensitive areas or rooms shown in Table 315. When outdoor humidity and internal moisture sources are not sufficient to meet the requirements of Table 315, humidification shall be provided by means of the health-care facility air-handling systems. Temperature shall be individually controlled for each operating and delivery room. Burn unit patient rooms that require humidifiers to comply with Table 315 shall be provided with individual humidity control.*

NOTATION:

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

Reference: Health and Safety Code Section 129850

**CHAPTER 4
VENTILATION AIR SUPPLY**

Adopt entire 2012 Uniform Mechanical Code (UMC) Chapter and carry forward existing amendments of the 2010 California Mechanical Code (CMC) for OSHPD 1, 2, 3 & 4 with the following modifications:

407.2.1 Outdoor Air Intakes. *Outdoor air intakes shall be located at least 25 feet (7.62 m) from exhaust outlets of ventilating systems, combustion equipment stacks, medical-surgical vacuum systems, cooling towers, ~~plumbing vents~~, and areas that may collect vehicular exhaust or other noxious fumes. Plumbing vents shall be located in relation to outdoor air intakes per California Plumbing Code. The bottom of outdoor air intakes shall be located as high as practicable, but not less than 10 feet (3048 mm) above ground level. If installed ~~through~~ above the roof, they shall be located 18 inches (457 mm) above roof level or 3 feet (914 mm) above a flat roof where heavy snowfall is anticipated.*

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407.4.1.1 *Air supplied to operating rooms, cesarean operating rooms, cardiac catheterization labs, cystoscopy rooms, delivery rooms, and nurseries, shall be delivered at or near the ceiling of the area served. In these areas and in morgues and autopsy rooms and all air removed from the area shall be removed near floor level. Exhaust or recirculation inlets shall be located not less than 3 inches (76 mm) nor more than 8 inches (203 mm) above the finished floor, except in morgues and autopsy rooms where all of the exhaust air is removed through an autopsy table designed for this purpose. At least two exhaust or recirculation air inlets shall be used in all cardiac catheterization labs, cystoscopy rooms, operating rooms, and delivery rooms shall be located not less than 3 inches (76 mm) nor more than 8 inches (203 mm) above the finished floor.*

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407.4.1.4 *No space above a ceiling may be utilized as an outside-air, relief-air, supply-air, exhaust-air, or return-air plenum.*

Exceptions: *Designs specifically approved by the enforcing agency.*

(1) Designs specifically approved by the enforcing agency.

(2) OSHPD 3SE facilities.

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408.3 *~~Filters for Skilled Nursing Facilities, Intermediate Care Facilities, and Correctional Treatment Centers.~~ Filters for Skilled Nursing Facilities, Intermediate Care Facilities, and Correctional Treatment Centers.*

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409.3 Insulation of Ducts. *Cold air ducts shall be insulated wherever necessary or to prevent condensation ~~problems.~~*

**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**

A	B	C	D	E	F
AREA DESIGNATION	AIR BALANCE RELATIONSHIP TO ADJACENT AREAS ⁸	MINIMUM AIR CHANGES IF 100% O.S.A.	CONDITIONED AIR NOT 100% O.S.A.		ALL AIR EXHAUSTED DIRECTLY TO OUTDOORS
			MINIMUM AIR CHANGES OF OUTDOOR AIR PER HOUR	MINIMUM TOTAL AIR CHANGES PER HOUR	
... Patient room	NR	2	2	6	---
<u>Dialysis treatment room</u>	<u>NR</u>	<u>6</u>	<u>2</u>	<u>6</u>	---
<u>Dialyzer reprocessing room</u> ...	<u>N</u>	---	---	<u>10</u>	<u>Yes</u>
... Bacteriology	N	6	2	6	Yes
<u>Nuclear medicine</u>	<u>N</u>	<u>6</u>	<u>2</u>	<u>6</u>	<u>Yes</u>
<u>Nuclear medicine hot lab</u>	<u>N</u>	---	---	<u>6</u>	<u>Yes</u>
Negative pressure <u>Airborne infection isolation treatment/exam room</u> <u>Permitted for [OSHPD 3SE]</u> ...	N	12	2	12	Yes
... Waiting area primary care clinic	N	10	2	10	Yes ²
<u>Staff sleep rooms</u>	<u>NR</u>	<u>2</u>	<u>2</u>	<u>4</u>	---
<u>Morgues and autopsy rooms</u> ...	<u>N</u>	<u>10</u>	<u>2</u>	<u>10</u>	<u>Yes</u>

P = Positive NR = No requirement for continuous directional control N = Negative

- 1 The pressure relationship of the entire emergency department shall be negative to other adjacent areas.
2 Air may be recirculated if a high-efficiency particulate air (HEPA) filter with a minimum efficiency of 99.97 percent or a minimum efficiency reporting value (MERV) of 17 is installed in the return air duct which serves the waiting area.

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

Administrative, med staff support areas, bulk storage, soiled holding areas, food preparation areas, public cafeterias, and laundries, and OSHPD 3SE facilities.	1	30%	-	-
		(8)	-	-

NOTATION:

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

Reference: Health and Safety Code Section 129850

**CHAPTER 5
EXHAUST SYSTEMS**

Adopt entire 2013 Uniform Mechanical Code (UMC) Chapter and carry forward existing amendments of the 2010 California Mechanical Code (CMC) for OSHPD 1, 2, 3 & 4.

NOTATION:

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

Reference: Health and Safety Code Section 129850

**CHAPTER 6
DUCT SYSTEMS**

Adopt entire 2013 Uniform Mechanical Code (UMC) Chapter and carry forward existing amendments of the 2010 California Mechanical Code (CMC) for OSHPD 1, 2, 3 & 4 with the following modifications.

602.1 General. Supply air, return air, and outside air for heating, cooling, or evaporative cooling systems shall be conducted through duct systems constructed of metal as set forth in the *ANSI/SMACNA 006–2006 HVAC Duct Construction Standards – Metal and Flexible*, or another approved duct construction standard. Rectangular ducts in excess of two (2) inches w.g. shall comply with the *ANSI/SMACNA 006–2006 HVAC Duct Construction Standards - Metal and Flexible*, or another approved duct construction standard. Ducts, plenums, and fittings may be constructed of concrete, clay, or ceramics when installed in the ground or in a concrete slab, provided the joints are tightly sealed.

In other than Group A, E, H, I, L, and R occupancies, high-rise buildings, and other applications listed in Section 1.11.0 regulated by the Office of the State Fire Marshal, corridors shall not be used to convey air to or from rooms if the corridor is required be of fire-resistive construction per the Building Code. In Group A, E, H, I, L, and R occupancies, high-rise buildings, and other applications listed in Section 1.11.0 regulated by the Office of the State Fire Marshal, corridors shall not be used to convey air to or from rooms except where permitted in accordance with Section 1018.5 of the California Building Code.

Exception: [OSHPD 1, 2, 3, & 4] (See Section 407.4.1.3).

Not permitted for [OSHPD 1, 2, 3 & 4] Permitted for [OSHPD 3SE] Concealed building spaces or independent construction within buildings may be used as ducts or plenums. When gypsum products are exposed in ducts or plenums, the air temperature shall be restricted to a range from 50°F (10°C) to 125°F (52°C), and moisture content shall be controlled so that the material is not adversely affected. For the purpose of this section, gypsum products shall not be exposed in ducts serving as supply from evaporative coolers, and in other air-handling systems regulated by this chapter when the temperature of the gypsum product will be below the dew point temperature.

See Chapter 8 for limitations on combustion products venting systems extending into or through ducts or plenums.

See Chapter 5 for limitations on environmental air systems exhaust ducts extending into or through ducts or plenums.

Exhaust ducts under positive pressure and venting systems shall not extend into or pass through ducts or plenums. For appliance vents and chimneys, see Chapter 8.

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602.3.1 Flexible Ducts. [OSHPD 1, 2, 3 & 4] *In hospital building projects and all other health-care facilities, including clinics and correctional treatment centers, flexible ducts of not more than 10 feet (3048 mm) in length may be used to connect supply, return or exhaust-air terminal devices to rigid duct systems. Where constant volume, variable volume or mixing boxes are utilized, flexible duct of not more than 10 feet (3048mm), may be used on the inlet side for alignment. An internal impervious liner shall be provided to isolate insulation material from conditioned air. Exception: [OSHPD 3SE]*

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605.0 Insulation of Ducts.

Supply-, return-air ducts and plenums of a heating or cooling system shall be insulated to achieve the minimum thermal (R) value as set forth in *Tables 6-6A and B. [OSHPD 1, 2, 3 & 4]* *Cold air ducts shall be insulated wherever necessary or to prevent condensation problems.*

NOTATION:

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

Reference: Health and Safety Code Section 129850

CHAPTER 7 COMBUSTION AIR

Adopt entire 2012 Uniform Mechanical Code (UMC) Chapter for OSHPD 1, 2, 3 & 4 without amendments.

NOTATION:

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

Reference: Health and Safety Code Section 129850

CHAPTER 8 CHIMNEYS AND VENTS

Adopt entire 2012 Uniform Mechanical Code (UMC) Chapter for OSHPD 1, 2, 3 & 4 without amendments.

NOTATION:

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

Reference: Health and Safety Code Section 129850

CHAPTER 9 INSTALLATION OF SPECIFIC APPLIANCES

Adopt entire 2012 Uniform Mechanical Code (UMC) Chapter and carry forward existing amendments of the 2010 California Mechanical Code (CMC) for OSHPD 1, 2, & 4. Adopt the entire chapter for OSHPD 3 without amendments.

NOTATION:

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

Reference: Health and Safety Code Section 129850

**CHAPTER 10
STEAM AND HOT WATER BOILERS**

Adopt entire 2012 Uniform Mechanical Code (UMC) Chapter for OSHPD 1, 2, 3 & 4 without amendments.

NOTATION:

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

Reference: Health and Safety Code Section 129850

**CHAPTER 11
REFRIGERATION**

Adopt entire 2012 Uniform Mechanical Code (UMC) Chapter and carry forward the existing amendments of the 2010 California Mechanical Code (CMC) for OSHPD 1, 2, 3 & 4.

NOTATION:

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

Reference: Health and Safety Code Section 129850

**CHAPTER 12
HYDRONICS**

Adopt entire 2012 Uniform Mechanical Code (UMC) Chapter and carry forward the existing amendment of the 2010 California Mechanical Code (CMC) for OSHPD 1, 2, & 4. Adopt the entire chapter for OSHPD 3 without amendments.

NOTATION:

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

Reference: Health and Safety Code Section 129850

**CHAPTER 13
FUEL GAS PIPING**

Adopt entire 2012 Uniform Mechanical Code (UMC) Chapter for OSHPD 1, 2, 3 & 4 without amendments.

NOTATION:

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

Reference: Health and Safety Code Section 129850

**CHAPTER 14
PROCESS PIPING**

Adopt entire 2012 Uniform Mechanical Code (UMC) Chapter for OSHPD 1, 2, 3 & 4 without amendments.

NOTATION:

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

Reference: Health and Safety Code Section 129850

**CHAPTER 15
SOLAR SYSTEMS**

Chapter is not adopted for OSHPD 1, 2, 3 & 4.

NOTATION:

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

Reference: Health and Safety Code Section 129850

**CHAPTER 16
STATIONARY FUEL CELL POWER PLANTS**

Chapter is not adopted for OSHPD 1, 2, 3 & 4.

NOTATION:

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

Reference: Health and Safety Code Section 129850

**CHAPTER 17
STANDARDS**

Adopt entire 2012 Uniform Mechanical Code (UMC) Chapter and carry forward the existing amendments of the 2010 California Mechanical Code (CMC) for OSHPD 1, 2, 3 & 4.

NOTATION:

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

Reference: Health and Safety Code Section 129850

**APPENDIX A
UMC STANDARDS NO. 6-2**

OSHPD is not adopting Appendix A, 2012 Uniform Mechanical Code (UMC) Standards No. 6-2 for OSHPD 1, 2, 3 & 4.

NOTATION:

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

Reference: Health and Safety Code Section 129850

**APPENDIX B
PROCEDURES TO BE FOLLOWED TO PLACE GAS EQUIPMENT IN OPERATION**

Adopt entire 2012 Uniform Mechanical Code (UMC) Appendix for OSHPD 1, 2, 3 & 4 without amendments.

NOTATION:

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

Reference: Health and Safety Code Section 129850

**APPENDIX C
INSTALLATION AND TESTING OF OIL (LIQUID) FUEL-FIRED EQUIPMENT**

Adopt entire 2012 Uniform Mechanical Code (UMC) Appendix for OSHPD 1, 2, 3 & 4 without amendments.

NOTATION:

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

Reference: Health and Safety Code Section 129850

**APPENDIX D
UNIT CONVERSION TABLES**

Adopt entire 2012 Uniform Mechanical Code (UMC) Appendix for OSHPD 1, 2, 3 & 4 without amendments.

NOTATION:

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

Reference: Health and Safety Code Section 129850