



2020 West El Camino Avenue, Suite 800
Sacramento, CA 95833
hcai.ca.gov



**HOSPITAL BUILDING SAFETY BOARD
Codes and Processes Committee**

**Wednesday, January 10, 2024
10:00 a.m. – 4:00 p.m.**

**Teleconference Meeting Access:
Access Code: 644-869-593**

Committee Members Present

Michael O'Connor, Committee Chair
Teresa Endres, Vice-Chair
Louise Belair
Gary Dunger
John Griffiths
Scott Mackey
Jim Malley

Consulting Members Present

Kelly Martinez
Belinda Young

HCAI Staff Present

Chris Tokas, OSHPD Deputy Director
Richard Tannahill
Larry Enright
Mike Hooper
Mia Marvelli
Diana Navarro
Jamie Schnick
Nanci Timmins
John Gray

HBSB Staff Present

Veronica Yuke, Acting Executive Director
Marcus Palmer
Evet Torres

- 1 **1. Call to Order and Welcome**
- 2 Michael O'Connor, Committee Chair, called the meeting to order on January 10, 2024,
- 3 at 10:00 a.m., and HBSB Acting Executive Director, Veronica Yuke called roll.

1 **2. Roll Call and Meeting Advisories/Expectations**

2 Seven members of the Committee present constitute a quorum. There being nine
3 present at the time of roll, a quorum was established.

4
5 Ms. Yuke read the meeting rules and procedures.
6

7 **3. Proposed amendments to the 2025 California Mechanical Code (CMC), Part 4,**
8 **Title 24**

9 **Presenter:** Mia Marvelli and Larry Enright, HCAI
10

11 **Discussion and Input**

12 Ms. Marvelli recapped that the electrical, mechanical, and plumbing code cycles were
13 due to the Building Standard Commission (BSC) on February 1, 2024.

14 Mr. Enright talked about the California Mechanical Code, Part 4 Initial Express Terms
15 (IET) presentation for the 2024 Triennial Code Cycle:

- 16 • Chapter 2 – Definitions.
 - 17 ▪ 210.0 – H – Health Facilities – changed “Health” to “Hospital” in (OSHPD)
18 Office of Statewide Hospital Planning and Development.
- 19 • Section 318 – Scope.
 - 20 ▪ 318.1 Applicability – struck out existing language - adoption tables for
21 applications for specific sections.
- 22 • Section 321.0 – Essential Power.
 - 23 ▪ 321.3 - Introduction of a new cooling equipment requirement to be the
24 minimum standard for operating rooms or other spaces categorized as
25 category 1, as identified through facility risk assessments.
 - 26 ▪ 321.6 All control components, control systems, and fire and smoke dampers
27 necessary for the normal operation of equipment required to have essential
28 electrical power.
- 29 • Section 322 – Sensitive Areas – temperature and humidity requirements.
 - 30 ▪ Additional sections and tables that do have humidity requirements and class
31 1,2,3 imaging added into the California Building Code (CBC).
- 32 • Section 401.0 General - editorial changes to reference the actual OSHPD
33 amendments.
- 34 • Section 402.0 – Ventilation Air.
 - 35 ▪ 402.1 – removal of OSHPD in the amendment in the model code sentence.

- 1 • Section 402.1.2 – Ventilation in Health Care Facilities – model code calls out
2 ASHRAE 170 and does not have any healthcare requirements.
- 3 • Section 406.0 – Evaporative Cooling – striking out food preparation areas.
- 4 • 407.0 – Ventilation System Details.
 - 5 ▪ 407.1 - long paragraph requirements relocated to a new section in
6 accordance with section 407.7.
- 7 • 407.2.2 – Exhaust Outlets - code changes for Class 4 type hazardous exhaust.
- 8 • 407.3 – Air Balance – clarify that air balance tolerance values shall not result in
9 noncompliance of the minimum required pressurization.
- 10 • 407.4 – Air Circulation.
 - 11 ▪ 407.4.1.1 (formerly 420.0) Air Distribution Devices [OSHPD 1, 2, 3, 4, 5]. All
12 air distribution devices and supply air outlets shall meet the requirements of
13 ASHRAE 170-2013, Section 6.7.2 and Table 6.7.26-2.
 - 14 ▪ 407.4.1.2(formerly 407.4.1.6) Supply outlets and return and exhaust air inlets
15 shall be located to prevent short-circuiting.
 - 16 ▪ 407.4.1.1 - reworded and relocated to 407.4.1.5 and 407.4.1.6.
 - 17 ▪ 407.4.1.4 Air supplied to procedure rooms and class 2 imaging shall be
18 delivered over the patient table.
 - 19 ▪ 407.4.1.5 and 407.4.1.6 - separated into two, one dealing with operating
20 rooms and the other one dealing with morgues.
 - 21 ▪ Renumbering of 407.4.1 to 407.4.2, 407.4.1.4 to 407.4, 407.4.1.5 to 407.4.4
22 and 407.4.1.6 relocated to 407.4.1.1.
 - 23 ▪ 407.4.1.7407.4.5 Recirculating Room Units – ASHRAE 170 added a
24 recirculate room column.
- 25 • 407.5 Variable Air Volume.
 - 26 ▪ 407.5.1.3 – additional language that talks about maintaining space
27 pressurization.
 - 28 ▪ 407.5.1.4 – additional language for sensitive rooms or areas shall be provided
29 with an automatic modulating damper on the supply and on the return or
30 exhaust air for each space.
 - 31 ▪ 407.5.1.5 NR spaces per Table 4A shall utilize a modulating damper in the
32 return air for each zone or zones with similar conditions.
- 33 • 407.6 – Economizers.
 - 34 ▪ 407.6.1 – editorial changes to add title header.
- 35 • 407.7 – Unoccupied Turndown.

- 1 ▪ 407.7.1 - Unoccupied turndown column of Table 4-A, the number of air
- 2 changes shall be permitted to be reduced.
- 3 • 407.8 – Building Pressurization - 170 national standard requirement for
- 4 exfiltration.
- 5 • 408.0 – Filters.
- 6 ▪ 408.1.7 HEPA filtration, where required by Table 4-B, shall be provided at the
- 7 terminal device outlet.
- 8 ▪ 408.3 Filters for Skilled Nursing Facilities, Intermediate.
- 9 ▪ 408.3.2 and 408.3.3 stricken out.
- 10 ▪ 408.4 Filters for Outpatient Facilities – removal of 408.4.2 noncentral
- 11 recirculating units.
- 12 ▪ Addition of Section 408.5 Filters for Recirculating Room Units and 408.5.1
- 13 Filters for Recirculating Room Units to comply with Section 407.4.5.
- 14 • 409.0 – Ducts – removing 409.3 since it is duplicated language, which was
- 15 covered in Chapter 6.
- 16 • 414.0 – Airborne Infection Isolation – National Standard Code increased exhaust
- 17 discharge from fans to 10 above the roof and discharge vertically upward.
- 18 • 417.0 Testing and Balancing Airborne Infection Isolation Rooms and Protective
- 19 Environment Rooms – added one sentence at the end to discuss air balance
- 20 testing to include a pressure test at all doors serving the isolation and anterooms.
- 21 • 420.0 – Air Distribution Devices - relocated to 407.4.1.1.
- 22 • Table 4A – removed the minimum filter efficiency column and provided the FGI
- 23 language.
- 24 • Table 4B – modified to work with the high-efficiency particulate air (HEPA)
- 25 requirement.
- 26 • Table 4C skilled nursing facilities and intermediate care – added banners for
- 27 hospitals, outpatient, correctional treatment facilities, or Skilled Nursing Facilities.
- 28 • 603.4 – Flexible Air Ducts.
- 29 ▪ 603.4.1.1 – struck out 1R and added a sentence that dealt with fire and
- 30 smoke dampers.
- 31 • 605.0 –Insulation of Ducts.
- 32 ▪ 605.2 – removed 1R, surgical clinics, added class 3 imaging and hybrid
- 33 operating rooms.
- 34 ▪ 605.3 – removed 1R, and the language was revised to match HEPA
- 35 requirements in Table 4B.
- 36 • Table 1104.1 – occupancy group 2.1 removed from the Part 2 building code.

1 Mr. Griffiths asked whether the need for spaces, as mentioned in the facility's safety risk
2 assessment, pertained to new or pre-existing facilities. Mr. Tokas clarified that the risk
3 assessment plan was a mandatory requirement that varied depending on the services
4 provided by the facility. Mr. Tannahill mentioned that the risk assessment was part of
5 the functioning program to be provided by the owner, and optional requirements would
6 be identified from there.

7 Ms. Belair asked if the facility safety risk assessment was similar to the Emergency
8 Operation Plan or different from the one referenced in NPC-5 compliance. Mr. Tokas
9 answered that it was different from the one referenced in NPC-5 compliance.

10 Ms. Belair inquired if all operating room support spaces were required to have cooling
11 systems or if there were exceptions. Mr. Tannahill answered that the cooling systems
12 were only required for the operating room itself.

13 Mr. Mackey mentioned that the Education and Outreach Committee had plans to do a
14 webinar in 2024 on the operation plans, how they were done, and what the plans would
15 involve.

16 Mr. Griffiths asked what the process was for considering natural ventilation through the
17 windows as supplemental to the required mechanical ventilation. Mr. Tannahill
18 answered that the wording just stated that it used natural ventilation in addition to what
19 was already there.

20 Ms. Belair asked whether a modulating damper was necessary for constant volume
21 exhaust systems. Mr. Enright answered that it was only applicable to variables on the
22 exhaust systems.

23 Ms. Young asked whether clarification was needed on the outside air requirements for
24 the fire control room. Mr. Enright answered that there was no such clarifying language
25 for the matter, but that he would work collaboratively with Ms. Timmins to address the
26 issue.

27 Mr. Malley suggested revising the language in 407.4.5.1 to apply to areas not listed in
28 Table 4A that are not directly connected to patient care areas.

29 Mr. Griffiths requested clarification or simplification of the steps required to complete the
30 code from its current stage. Ms. Marvelli said another meeting of the Code and Process
31 Committee would take place in February to discuss changes in Part 1 and Part 2 and
32 introduce mechanical adjustments for clarification. She stated that the proposed code
33 changes would be submitted to the California Building Standards Commission (CBSC)
34 by February 1, 2024, after the committee votes. The Code Advisory Committee then
35 reviews the changes in a meeting scheduled for late March.

36 Mr. Malley asked if the February 1st submission to CBSC would consist of what was
37 presented, and include the understanding of the discussions and the intent behind the
38 proposed changes. Mr. Enright confirmed that that would be the intent.

1 **MOTION: [Belair/Mackey]**

2 The committee unanimously voted to approve the proposed amendment to the 2025
3 California Mechanical Code Part 4, title 24.

4

5 **Informational and Action item**

- 6 • None

7

8 **4. Proposed amendments to the 2025 California Plumbing Code (CPC), Part 5,**
9 **Title 24**

10 **Presenter:** Larry Enright, HCAI

11

12 **Discussion and Input**

13 Mr. Enright discussed the changes to the California Plumbing Code, Part 5 Initial
14 Express Terms submitted to the CBSC:

- 15 • Chapter 2 – Definitions.
- 16 ▪ 210.0 H - handwashing fixture added the “the flow rate for handwashing
17 fixtures shall not be less than 1.0 gallons per minute” in Item C, and added
18 tolerance on the 180° return in Item D.
- 19 ▪ 221.0 – scrub sink addition definition that does not involve contact with the
20 upper extremities and the scrub sinks would have option for temperature
21 control.
- 22 • 310.0 Prohibited Fittings and Practices – model code added sections leading to
23 redoing section numbers for OSHPD amendments to follow the model code.
- 24 • 319.0 Medical Gas and Vacuum Systems – struck out not permitted for OSHPD
25 1, 2, 3, 4 & 5 banner.
- 26 • 422.0 Minimum Number of Required Fixtures.
- 27 ▪ 422.3.1 – Exception 2 added - For public waiting areas with an occupant load
28 of 10 or less, one toilet facility, designed for use by no more than one person
29 at a time, shall be permitted for use by both sexes.
- 30 • 604.0 Materials – the word Health changed to Hospital in the OSHPD definition,
31 and the addition of potable water to note the potable water applications.
- 32 • 609.10 Disinfection of Potable Water System – addition of item 5 stating that
33 Disinfection shall be completed no more than three weeks before whole or partial
34 beneficial occupancy.
- 35 • Table 613.1 – 1R struck out, language change in Item 1 for water temperature to
36 be 180 degrees Fahrenheit unless a chemical disinfection would be provided,
37 and Item 3 added to coordinate with health authority.

- 1 • 613.0 Domestic Hot-Water.
 - 2 ▪ 613.2 added language stating that storage water heaters and hot-water
 - 3 storage tanks shall be maintained at 140°F or above.
 - 4 ▪ 613.6 added sentence stating that Hot water recirculation piping shall return
 - 5 the recirculation loop back through the hot water source.
 - 6 ▪ Added section 613.9 Hot water distribution shall include test ports and valved
 - 7 openings for flushing of portions of the system in accordance with the facility's
 - 8 water management program.
- 9 • 614.0 Dialysis Water-Distribution Systems.
 - 10 ▪ 614.1 –the Association for American Association of Medical Instrumentations
 - 11 (AAIM) standard referenced RD 62 revisions to 23500-2
 - 12 ▪ 614.7 - incorporated 23500-2 and 23500-3.
- 13 • 616.0 Emergency Water Supply.
 - 14 ▪ Editorial changes from 615.4 to 616.0 and 615.4.1 to 616.1.
 - 15 ▪ Added 616.2 Storage tanks connections and circulation shall be designed to
 - 16 limit water stagnation and temperature stratification.

17

18 Ms. Belair asked if sensor-operated fixtures were the only recommended option in
19 221.0, or if knee or foot-operated fixtures were permitted. Mr. Enright answered that
20 footnote 33 stated that if the action did not involve contact with the upper extremities or
21 the use of arms, all those methods were deemed acceptable.

22 Mr. Mackey suggested that if the statement was that the fixture was sensor-operated, it
23 should not exclude the use of other methods such as feet and knees. He added that if
24 the intent was to allow feet and knees, it should be explicitly stated to avoid a strict
25 limitation to sensor operation.

26 Mr. Tannahill clarified that the existing language regarding sensor-operated fixtures
27 specified their capability but did not mandate their exclusive use, indicating that other
28 methods could also be employed.

29 Ms. Martinez asked for clarification on the term occupancy, questioning whether it
30 referred to a certificate of occupancy indicating substantial compliance or the actual
31 utilization of the space. Mr. Enright answered that the language regarding partial
32 beneficial occupancy aligned with the national standard.

33

34 **MOTION: [Belair/Mackey]**

35 The committee unanimously voted to approve the proposed amendment to the 2025
36 California Plumbing Code Part 5, Title 24 as discussed and presented.

1 **Informational and Action item**

- 2 • None

3

4 **5. Comments from the public/committee members on issues not on this agenda**

5 **Presenter:** Michael O'Connor, Committee Chair

6 Future Codes and Processes Committee meetings:

- 7 • February 21, 2024.
- 8 • May 8, 2024.
- 9 • September 11, 2024.

10

11 **Discussion and input**

12 Mr. O'Connor expressed gratitude to committee members for their participation and
13 thanked HCAI staff for their preparation ahead of the session.

14

15 **6. Adjournment**

16 Mr. O'Connor adjourned the meeting on January 10, 2024, at approximately 12:24 p.m.