2. Presentation: Code Revision Update for 2022
   Facilitator: Richard Tannahill, OSHPD (or designee)
   • Discussion and public input
LOOKING AHEAD TO 2022

Hospital Building Safety Board
Administrative Processes, Code Changes
And Standard Details Committee Meeting
August 20, 2020
Part 1 – Administrative Code

- Modified turnaround times for client back check submittals per project size, scope and cost
- Fee modifications for small projects
- IOR notifications
- Construction Start definition
- Substantial Compliance definition
- Clarify what “construction costs” include
- Rewrite Collaborative Review
- NPC-5 Update
2022 PROPOSED ITEMS

- **Part 2 – Building Code Volume 1**
  - Patient visibility in imaging rooms (use of cameras?)
  - Clearances between gurneys in multi-bed service areas
  - Interventional Imaging clarifications (type of environment)
  - Proximity requirements for Cath Lab and EP to OR suite
  - Occupational Therapy requirements to align with T22
  - Alignment of outpatient services requirements between 1224.39 and 1226
  - Soft doors in Psych toilets

- **Part 2 – Building Code Volume 2**
  - Nothing at this time
Part 3 – Electrical Code
- Nurse call in clinics
- Electrical receptacles in interventional rooms
- High-amperage electrical rooms embedded within patient care environments
- Electronic Health Records impacts to building standards
- Manual back-up of systems in the event that automated controls fail
- POE lighting
Part 4 – Mechanical Code
- Align ASHRE 170 diffuser types
- Clarify outdoor air requirements for air handlers serving medical and non-medical spaces
- Fuel requirements for SNFs
- Generator exhaust locations

Part 5 – Plumbing Code
- Electrical number of bathtubs/showers in nursing unit with plumbing code
- Anti-ligature allowances to handwashing fixtures
- Adjust emergency water for more than just bed count
- Add special precautions for waste/drain over compounding suite
- Consider allowing wells and private sewers to meet water storage requirements
Part 6 – Energy Code - informational

- **Refrigeration System Opportunities:** Design and Control Requirements for Transcritical CO2 Systems – Health facilities will be required to meet these new requirements.

- **Refrigeration System Opportunities:** Automatic Door Closers – These would apply to health facility walk-in coolers and freezers as well. [https://title24stakeholders.com/measures/cycle-2022/refrigeration-system-opportunities/](https://title24stakeholders.com/measures/cycle-2022/refrigeration-system-opportunities/)

- **Air Distribution:** Fan Power Budget – This proposal would require health facilities to meet fan power budgets, which they are currently exempt from.

- **Air Distribution:** Fan Energy Index – This would be a new requirement which would also apply to health facilities. [https://title24stakeholders.com/measures/cycle-2022/air-distribution/](https://title24stakeholders.com/measures/cycle-2022/air-distribution/)

- **CASE Reports:**
  - Computer Room Efficiency
  - Compressed Air
  - Air Distribution
  - HVAC Controls
  - Reduce Infiltration
2022 PROPOSED ITEMS

- Part 10 – Existing Building Code
  - Nothing being proposed at this time

- Part 11 – Green Building Code
  - Items being reviewed as this did not get into the 2019 Intervening Code revisions. Carry over to 2022
2019 CALIFORNIA GREEN BUILDING CODE – BLUE SUPPLEMENT

Anticipated Amendments to the 2019 CALGreen Code

• Chapter 1 – OSHPD 1, 1R, 2, 3, 4 & 5 – Add facility types to Administrative Chapter
• Chapter 3
  • 301.5 Mandatory (MWELO) – Clarify Local Enforcement of parts of Chapter 5
  • 305.1 – OSHPD Energy Tier 1 & Tier 2 – Update existing voluntary tiers
• Chapter 5
  • Division 1 – SWPPs, BMPs, Bicycles, Clean Air/EV parking, BUG ratings – [Locals]
  • Division 2- Energy – Comply w/ Part 6 – California Energy Code [OSHPD]
  • Division 3 – Water Efficiency – MWELO only [Locals], no indoor low-flow fixtures
  • Division 4 – Material conservation, constr. waste reduction, recycling [Locals]
  • Division 5 – Pollutant control [OSHPD]
    • Adhesives, caulks & sealants, paints, coatings & carpet VOC Levels
    • Composite wood – limited formaldehyde, resilient flooring VOC levels
APPENDIX A6.1 Voluntary Measures for Health Facilities [OSHPD 1, 1R, 2, 3, 4 & 5]

Division 1 – Site Work
- Mandatory Measures from Chapter 5 – [Locals]
- 10% Fuel efficient parking (Tier 1), 12% (Tier 2) – [Locals]
- 8% EV charging stations (Tier 1), 10% (Tier 2) – [Locals]
- One elective measure (Tier 1), two electives (Tier 2) – [Locals]

Division 2- Energy – Comply w/ Part 6 – California Energy Code [OSHPD]
- Savings by Design, Healthcare Baseline Procedures (Tier 1) [OSHPD]
- Savings by Design + 15% (Tier 2) [OSHPD]

Division 3 – Water Efficiency & Conservation
- Mandatory Measures from Chapter 5 – [Locals]
- One elective measure (Tier 1), two electives (Tier 2) – [Locals]
Division 4 – Material Conservation
• Mandatory Measures from Chapter 5 – [Locals]
• Recycled content
• Waste reduction/diversion – 65% (Tier 1), 80% (Tier 2) – [Locals]
• One elective measure (Tier 1), three electives (Tier 2) – [Locals]

Division 5 – Environmental Quality
• Mandatory Measures from Chapter 5 – [OSHPD]
• Composite wood – no formaldehyde (Tiers 1 & 2) – [OSHPD]
• Resilient flooring 90% certified VOC limits (Tier 1), 100% (Tier 2) – [OSHPD]
• Thermal insulation formaldehyde limits (Tier 1), none (Tier 2) – [OSHPD]
• One elective measure (Tier 1), two electives (Tier 2) – [OSHPD]

Commissioning via TIO & Verified Field Reports
PROPOSED TOPICS
RESEARCH
STATUS
Starting Clinic Advisory Committee meetings to look at future code revisions
Reviewing Plan of Modernization requirements
Different Levels of Building Requirements based on Services Provided
3. **Presentation: Emergency Design Task Force**
   Proposal of an Emergency Design Task Force to address design and regulatory concerns for emergencies
   Facilitator: Chris Tokas and Richard Tannahill, OSHPD (or designee)
   • Discussion and public input
Emergency Design Task Force

Hospital Building Safety Board
Administrative Processes, Code Changes
And Standard Details Committee Meeting
August 20, 2020
What was Discussed
Explore future impacts of COVID-19 on healthcare providers’ operations and planning, and to the design, agency review, construction, and inspection processes.

A. Discussion: Potential Future Impact to Healthcare Facility Design Process

B. Discussion: Potential Changes to Design Team and Agency Review Process— eServices Portal, ePlan Check, and video conferencing

C. Discussion: Potential Changes to Construction Process— Digitization

D. Discussion: Potential Changes to Inspection Process— Video and photos rather than wait for site visit

E. Discussion: Technology Use, Video Conferencing, Webinars, and Remote Working Best Practices
Changes for Hospitals

**Hospital Operational Changes**

- Restrictions on visitors/non-healthcare workers
- Enhanced cleaning requirements throughout facility
- Limitation on points of entry into facilities
- Deployment of surge tents
- High use of PPE
- Closure of clinics
- Shut down of elective surgeries
- Increased use of Telemedicine/Telehealth
- Staff work-from-home programs
Changes for Hospitals

**Facility Modifications**

- Conversion of non-isolation/non-patient spaces into isolation use
- Increased deployment of hand gels and improved hand hygiene requirements
- Increased deployment of UVC light emitting devices
- Deployment of staff and patient tracking mechanisms
Upcoming challenges:

• How can hospitals be designed so normal operations (such as elective procedures) can continue through a pandemic so as not disrupt regular patient treatment and reduce financial challenges?

• Restrictions will likely be implemented on patient/visitor traffic flow to control cross-contamination. How will this transform facility intake and entry design?

• How can architects emphasize on building flexible, adaptable facilities that can be easily modified to allow a quick response to changing medical priorities?

• How can healthcare and non-healthcare facilities be designed to handle patient overflow in a more expedient fashion?
What was Reviewed
• More airborne infection isolation rooms
• Some patient rooms adjustable to:
  • Negative pressure units
  • All air exhausted through HEPA
  • Some ORs with a negative ante-room
  • Operating rooms capable of switching from positive to negative?
  • Providing built-in options to converting patient rooms to negative pressure (similar to PIN 4)
• Possible further evaluation of circulation in triage/ED units
• ICU Capacity (2 beds per room?)
• UV-C treatment at coils and/or filters
• R.H. from 40% to 60% in some spaces
• Enhanced filtration with MERV 13 or 14 as a starting point. 13 is more applicable to many spaces while 14 may induce excess pressure drop
• Measures to increase outdoor air rates (dilution)
• In-room HEPA recirculating systems
• Evaluate the application of minimum 6 total ACH where there starts to be a point of diminishing return in the reduction of Quanta within a room
• Adjustment to some negative HEPA/exhaust ICU spaces
Design Elements

• Touchless operational components:
  • Water fountains
  • Water bottle fillers
  • Revolving doors
  • Elevators
  • Doors not requiring hand contact (accessibility bars, etc.)
• Disinfectant mats at entries
• Increased locations for low return/exhaust grilles
• Dedicated exhaust path for each toilet stall (partitions up to the ceiling). Possible increase to 15 ACH
• NPC-5 Standards
Design Elements

- Power for surge tents
- Water for surge tents
- Generator inlets for temp generators
- Freestanding ED's – statutory change required
- Primary Care Clinics (triaging, observation)?
- BMS – change pressure differentials depending on use needed
Emergency Design Task Force
Why a Task Force?

• Ongoing work
• Can meet anytime with non-committee members
• Get facility and industry input
• Can address multiple types of emergencies
• How can we ensure the hospitals have increased capacity during a surge to maintain safety and services?
• Will report back to Administrative Processes, Code Changes and Standard Details Committee
Emergency Design Task Force

Team Members

- OSHPD FDD
  - Executive Staff
    - Paul Coleman
    - Chris Tokas
    - Gordon Oakley
  - Building Standards Unit
    - Richard Tannahill
    - David Mason
    - Bill Gow
  - Carl Scheuerman
  - Diana Scaturro
  - Diana Navarro
  - FLSO – Nanci Timmins or designee

- CDPH
- Industry Representative
- Design Professionals
- Contractors/Builders
- IOR
- Field Staff (RCO)
- Others
Types of Emergencies

• Pandemic
• Earthquake
• Wildfire
• Others
Emergency Design Task Force

Building design modification ideas

• Operational
  • Patient Monitoring
  • More than 12 ICU beds in unit?
  • Improved patient throughput

• Planning – architectural
  • Hot Zones
  • Waste disposal
  • Flow patterns (clean/dirty)

• Mechanical
  • ICU conversions
  • Negative Pressure Units
  • Air recirculation

• Electrical

• Temporary Facilities
Emergency Design Task Force

Approaches

• Immediate implementation
  • No permission needed
  • Alternatives/optional

• PINs/CANs

• CDPH/CMS Acceptance Required

• Code Revisions

• Change in Statute
4. Comments from the Public/Committee Members on issues not on this agenda
Facilitator: Michael O’Connor, Committee Chair (or designee)

The committee will receive comments from the Public/Committee Members. Matters raised at this time may be taken under consideration for placement on a subsequent agenda.