

## **CBSC 2022**

+ Reference Standards

## Part 2 – Chapter 2 Definitions

**EQUIPMENT** (Relocated from the California Administrative Code, Chapter 7, Article 2) **[OSHPD 1, 1R, 2, 4 & 5].** Equipment as used in this part and all applicable parts of the California Building Standards Code shall be classified as building service equipment, fixed equipment, mobile or movable equipment.

- (1) **FIXED EQUIPMENT** includes items that are permanently affixed...
- (2) **MOVABLE EQUIPMENT** means equipment, with or without wheels or rollers, that typically remains in one fixed location during its service life or use...
- (3) **MOBILE EQUIPMENT** means equipment, with or without wheels or rollers, that is typically used in a different location than where it is stored and moved from one location in the structure to another during ordinary use...



#### And Don't Forget.....

PIN 68 – Support and Attachment Requirements for Fixed, Interim, Mobile, Movable, Other and Temporary Equipment

*Effective Date: 3/04/2020* 



## Part 2 – Chapter 2 Definitions

**REMOVED FROM ACUTE CARE SERVICE [OSHPD 1R].** Buildings that previously provided basic and/or supplemental services, as defined in Section 1224.3 that have been removed from acute care service in compliance with Part 10 California Existing Building Code Chapter 3A through a project approved by OSHPD, and remain under the jurisdiction of OSHPD.

You forgot the OSHPD Classification?

Hospitals [OSHPD 1]

General acute care hospitals buildings [OSHPD 1R]

Skilled Nursing Facilities [OSHPD 2]

Clinics [OSHPD 3]

Correctional Treatment Centers [OSHPD 4]

Acute psychiatric hospital buildings [OSHPD 5]



## Part 2 – Chapter 10 Means of Egress

**1003.1.1 Means of egress for hospitals. [OSHPD 1]** In addition to the requirements of this chapter, means of egress for hospitals shall comply with <u>Part 10</u> California Existing Building Code <u>Section 308A</u>.

1003.1.2 Means of egress for hospital buildings removed from acute care service, skilled nursing facilities, intermediate care facilities and acute psychiatric hospitals. [OSHPD 1R, 2 & 5] In addition to the requirements of this chapter, means of egress for hospital buildings removed from acute care service, skilled nursing facilities, intermediate care facilities and acute psychiatric hospitals shall comply with OSHPD amendments to Part 10 California Existing Building Code Section 308.



## Part 2 – Chapter 11B Detectable Warnings

#### 11B-247.1 Detectable warnings.

11B-247.1.1 General. Detectable warnings shall be provided in accordance with Section 11B-247.1 and shall comply with Section 11B-705.1.

11B-247.1.2 Where required. Detectable warnings shall be provided where required by Section 11B-247.1.2.

11B-247.1.2.1 Platform edges. Platform boarding edges shall have detectable warnings complying with Sections 11B-705.1.1 and 11B-705.1.2.1.

11B-247.1.2.2 Curb ramps. Curb ramps shall have detectable warnings complying with Sections 11B-705.1.1 and 11B-705.1.2.2.

11B-247.1.2.3 Islands or cut-through medians. Islands or cut-through medians shall have detectable warnings complying with Sections 11B-705.1.1 and 11B-705.1.2.3.

11B-247.1.2.4 Bus stops. Where detectable warnings are provided at bus stop both any and anguing are in compliance with Section 11B-810.2.3, detectable warnings shall comply with Sections 11B-705.1.1 and 11B-705.1.2.4.

11B-247.1.2.5 Blended transitions. Blended transitions shall have detectable warnings complying with Sections 11B-705.1.1 and 11B-705.1.2.5.

11B-247.1.2.6 Reflecting pools. The edges of reflecting curbs or detectable warnings complying with Sections 11B-705.1.1 and 11B-705.1.2.6.

11B-247.1.2.7 Track crossings. Where it is necessary to cross tracks to reach transit boarding platforms, detectable warnings complying with Sections 11B-705.1.1 and 11B-705.1.2.7 shall be provided.

#### Where are detectable warnings required?



Where the pedestrian path crosses a hazardous vehicular area



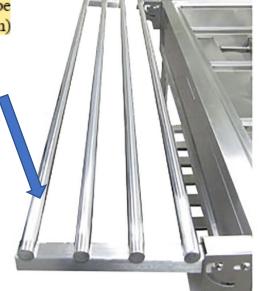
## Part 2 – Chapter 11 Detectable Warnings

#### Distance from finish floor to tops of tray slides....?

11B-904.5 Food service lines. Counters in food service lines shall comply with Section 11B-904.5.

11B-904.5.1 Self-service shelves and dispensing devices. Self-service shelves and dispensing devices for tableware, dishware, condiments, food and beverages shall comply with Section 11B-308.

11B-904.5.2 Tray slides. The tops of tray slides shall be 28 inches (711 mm) minimum and 34 inches (864 mm) maximum above the finish floor or ground.





Between 28" and 34"



## Part 2 – Chapter 12 Means of Egress

**1224.4.1.2** *Means of egress.* 

[OSHPD 1] Means of egress shall comply with Part 10, California Existing Building Code, Section 308A.

**[OSHPD 1R]** Means of egress shall only pass through structures that are under the jurisdiction of the Office of Statewide Health Planning and Development (OSHPD).



#### Part 2 – Chapter 12 Services/Systems & Utilities

1224.4.1.1 Services/systems and utilities.

[OSHPD 1] Services/systems and utilities shall comply with California Existing Building Code Section 307A.

[OSHPD 1R] Services/systems and utilities shall only originate in, pass through or under structures which are under the jurisdiction of the Office of Statewide Health Planning and Development (OSHPD).



#### Part 2 – Chapter 12 General Items

SERVICE SPACE. Service Space refers to the **distinct area** of a health facility where a **licensed** Basic Service or Supplemental Service is provided.

The Service Space shall include all the functional area requirements required to deliver the specific Service. **Basic Service Spaces** are identified in Sections 1224.14 through 1224.27. **Supplemental Service Spaces** are identified in Section 1224.28 through 1224.41. Similar distinctions are made between Basic and Supplemental or **Optional Services** in Section 1225 through Section 1228. Required functional areas may be a portion of a larger space, one or more Patient Care Locations, support areas or separate Rooms as defined in Section 1224.3. See departmental boundary requirements under Section 1224.4.4.7.6.



#### Part 2 – Chapter 12 General Items

- Further clarification of "Departmental Boundaries", location of identifiable spaces for each of the required functional areas within the department
- > Update of acceptable **Sound Transmission (STC) Ratings (per CBC)** 
  - Minor drop in ratings at patient rooms (STC 45 now max vs. 65)
  - Minor increase at exam rooms (HIPA)
  - Added MRI room ratings
- Clarification of Medication Station locations/observation

**1224.4.4.4.2** Self-contained medication dispensing unit. If provided, a self-contained medicine dispensing unit shall be located at the nurses' station, in the clean utility room, or in an area where access to the self-contained medication dispensing unit is under the monitoring and control of nursing staff. Self-contained medication dispensing units shall be provided with essential power and lighting.



## Part 2 – Chapter 12 General Items

#### **Restructured Nurse Call Table:**

(Replace existing Table 1224.4.6.5 and footnotes with the following re-formatted table)

TABLE 1224.4.6.5
[OSHPD 1, 1R, 2, 3, 4 & 5] LOCATION OF NURSE CALL DEVICES

• = Required

AREA DESIGNATION	STATION TYPE	1224	1225	1226	1227	1228
Nursing Units						
Patient toilet room	В	•	•		•	
Patient bathing	В	•	•		•	
Special bathing	E	•				
Patient bed (nursing service)	P,E,C	•			•	
Patient bed (intensive care)	P,E,C	•			•	
Patient bed (LDR/LDRP)	P,E,C	•			•	
Patient bed (Dementia Unit)	P	•	•		•	
Patient bed (SNF/ICF)	P	•	•		•	
NICU	E,C	•			•	
Nursery	E,C	•			•	
Support Areas						
Nurse/control station	М	•	•	•	•	•
Medication preparation room	D	•			•	
Soiled workroom /utility/holding	D	•			•	



## Part 2 – 1224 Nursing Support Space

- Required in each Nursing Unit
  - Administrative area / Nurse Station
  - Medication Station
- Shared between Nursing Units if having direct access
  - Equipment & Emergency Storage, gurneys & wheelchairs
  - Separate Clean and Soiled Utility Rooms, Clean linen storage
  - Nourishment area & Ice Machine

- > Shared between Nursing Units
  - Nurse/Supervisor Office
  - Staff toilet rooms
  - Housekeeping rooms
  - Special bathing facilities (optional)
- Optional or may be shared with other service spaces
  - Exam &/or treatment rooms are optional
  - Multipurpose rooms may be shared with other departments

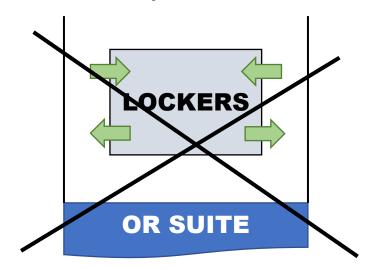


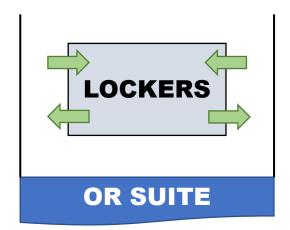
## Part 2 - Surgical Service Space

#### **Staff Clothing Change Areas**

Arranged to ensure a traffic pattern so that personnel can:

- ✓ Enter the staff change area from non-restricted space
- ✓ Change their attire
- ✓ Move directly into the semi-restricted surgical service corridor.







## Part 2 - Surgical Service Space

**1224.15.3.11 Staff clothing change areas.** Appropriate areas shall be provided for male and female personnel (orderlies, technicians, nurses and doctors) staff working within the surgical service space. The areas shall contain lockers, showers, toilets, lavatories equipped for handwashing stations, and space for donning surgical attire. These areas shall be arranged to **encourage ensure** a **one-way** traffic pattern so that personnel entering from <u>unrestricted area</u> outside the surgical service space can enter, change their clothing, and move directly into the surgical service space semi-restricted corridor.



## Part 2 — Clinical Lab Space

**1224.17.2 Laboratory work areas.** The following laboratory work areas shall be provided:

**1224.17.2.1 Laboratory workstation(s).** Space shall be provided to accommodate equipment used and, at minimum, shall include...

1224.17.2.2 Handwashing station(s).

**1224.17.2.3 Refrigerated storage facilities.** Refrigerated blood storage facilities for...

1224.17.2.4 Storage facilities

1224.17.2.5 Terminal sterilization.

**Exception:** Terminal sterilization facilities are not required when it can be demonstrated to the licensing agency that transport and terminal sterilization can be effectively contracted to an independent medical waste treatment facility.

**1224.17.2.6 Radioactive material handling.** If radioactive materials are employed...





## Part 2 – Clinical Lab Space

1224.17.3 Specimen Collection Facilities

**1224.17.3.1 General.** Space shall be provided for specimen collection. Facilities for this function shall be located outside the laboratory work area.

1224.17.3.2 Facility requirements. At a minimum...

**1224.17.4 Administrative areas.** Office(s) and space for clerical work, filing, and record maintenance and storage shall be provided.



Section 1224.19 Pharmaceutical Service Space

Reference Materials



- USP <797> & <800>
- Title 16 Pharmacy Sections 1735 and 1751



- Facility Guidelines Institute
- Industry Partners
- > Collaboration with CDPH and Board of Pharmacy







- > Dispensing Facilities (required for all Hospital Pharmacies)
  - Receiving/breakout/inventory
    - Size based on Functional Program w/ 120 sq. ft. minimum
  - Dispensing
    - Work counters/Space for manual or automated dispensing
    - Size for volume of doses per day for in-patients & outpatients
- Non-sterile compounding
  - Workstations
  - Handwashing Fixture
  - Utility sink
  - •Recording counter and electronic workstations
  - Storage
    - Temporary, Bulk, Active
    - Refrigerated, Secured, etc.



- > Non-Hazardous Sterile compounding (if provided)
  - Workstation vented biological safety cabinets, CAIs, etc.
  - Buffer room (Clean room)
    - 120 square feet + 75 s.f. for each additional workstation
    - Sealed tight, positive pressure, laminar flow, low level return
    - Semi-restricted finishes
  - Ante-Room (may be common with Hazardous Drug Compounding Clean Room)
    - 120 square feet
    - Sealed tight, negative pressure relative to Buffer room
    - Scrub sink, eyewash station, dedicated housekeeping
    - Semi-restricted finishes
  - Segregated Compounding Area (when provided) comply with Section 1250.



- > Hazardous Drug Sterile compounding (if provided)
  - Workstation vented biological safety cabinets, etc.
  - Buffer room (Clean room)
    - 130 square feet + 75 s.f. for each additional workstation
    - Sealed tight, negative pressure, laminar flow, low level return
    - Doffing area, Refrigerator, Semi-restricted finishes
  - Ante-Room (may be common with Non-Hazardous Compounding Clean Room)
    - 120 square feet
    - Sealed tight, negative pressure relative to Buffer room
    - Scrub sink, eyewash station, dedicated housekeeping
    - Semi-restricted finishes
  - Segregated Compounding Area (when provided) comply with Section 1250.



- > Support Areas for the Pharmacy
  - Access to information
    - Patient information
    - Pharmacopeia information
  - Office for Chief Pharmacist
  - Multipurpose room may be shared with other departments
  - Outpatient consultation area, if provided
  - Staff toilet rooms and lockers
  - Additional equipment & supplies



- > Optional Alternate for Hospitals with less than 100 beds
  - Drug Room Permit in lieu of Hospital Pharmacy
    - Receiving/breakout/inventory
    - Handwashing station
    - Storage bulk, refrigerated, secured, etc.



#### Part 2 – Dietetic Service Space

#### 1224.20 DIETETIC SERVICE SPACE

1224.20.1 General. Food and nutrition facilities shall be provided to support food services provided for staff, visitors, and patients. Adequate space for the preparation and serving of food shall be provided. Equipment shall be placed so as to provide aisles of sufficient width to permit easy movement of personnel, mobile equipment, and supplies. Food service facilities and equipment shall conform to these standards, the standards of the National Sanitation Foundation, and the requirements of the local public health agency.

1224.20.2 Functional elements. ...

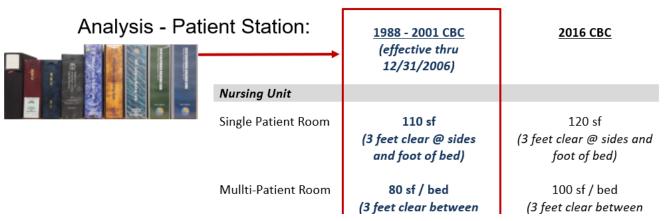
\* Also see 1224.29.2.10 for Infant Formula requirements



## Part 2 – Outpatient Observation Units

- Senate Bill 1076 (Health and Safety Code section 1253.7)
  - Defines "observation services" as "outpatient services... to those patient who
    have unstable or uncertain conditions potentially serious enough to warrant
    close observation, but not so serious as to warrant inpatient admission to the
    hospital."

New Code Section 1224.39.6





#### Part 2 – Outpatient Observation Units

- Location
  - Must be located in a conforming, or non-conforming, hospital building
  - May be located in a hospital building removed from acute-care service
- > Connection to Hospital Services
  - Corridor systems shall connect the unit to all Basic and Supplemental Services
  - Patient access to the unit shall not pass through public lobbies, waiting areas, other departments, or inpatient units
- > Support Spaces for Outpatient Services
  - Waiting Room
  - Access to Public Toilets
  - Access to Telephone & Drinking Fountain



## Section 1225 Skilled Nursing Facilities and Intermediate Care Facilities [OSHPD 2]

- > Means of egress required to only pass through building under OSHPD jurisdiction.
- ➤ Multi-story and/or higher Construction Types are no longer considered [OSHPD 1] for structural considerations or for "Existing Structures"
- > State Chapter 34A "Existing Structures" is repealed
- ➤ Section 1225.2.2 **egress requirements** now expanded to include multi-story SNFs previously considered [OSHPD 1] and previously addressed in *Chapter 34A*



- 1225.1.2 Subacute care. Patient rooms providing subacute care shall comply with Section 1225.5.1.2. Equipment and components supporting subacute bed(s) shall have special seismic certification per Section 1705. Electrical requirements shall comply with California Electrical Code Article 517.
  - Note: (Relocated from Section 1705.13.3.1) Construction documents for OSHPD 2 buildings without subacute beds shall explicitly state that the skilled nursing facility or intermediate care facility does not admit patients needing sustained electrical life support equipment





#### 1225.2.1 Services/systems and utilities.

Services/systems and utilities shall only originate in, pass through or under structures which are under the jurisdiction of the Office of Statewide Health Planning and Development (OSHPD).

**1225.2.2 Means of egress.** Means of egress shall only pass through structures that are under the jurisdiction of the Office of Statewide Health Planning and Development (OSHPD).



#### CMS 2-Bed Requirement – Impact to subacute conversions

, Title 42 -> Chapte

Title 42 → Chapter IV → Subchapter G → Part 483 → Subpart B → §483.90



Title 42: Public Health
PART 483—REQUIREMENTS FOR STATES AND LONG TERM CARE FACILITIES
Subpart B—Requirements for Long Term Care Facilities



- (2) Maintain all essential mechanical, electrical, and patient care equipment in safe operating condition.
- (e) Resident rooms. Resident rooms must be designed and equipped for adequate nursing care, comfort, and privacy of residents.
  - (1) Bedrooms must—
- (i) Accommodate no more than four residents. For facilities that receive approval of construction or reconstruction plans by State and local authorities or are newly certified after November 28, 2016, bedrooms must accommodate no more than two residents.

New construction or newly certified after November 28, 2018 = maximum of 2 beds/room



#### Section 1228 Acute-Psychiatric Hospitals [OSHPD 5]

- □ Clarification of Application Application of former [OSHPD 1] amendments that are applicable to Acute Psychiatric Hospitals as [OSHPD 5]
- ➤ Requirements were previously introduced in the 2018 Supplement to the 2016 CBC (effective date July 1, 2018)
  - Tailored hospital requirements specifically for acute psychiatric hospitals where they differ from general acute-care hospitals
  - Common elements shared with general acute-care hospitals still located in 1224.4 with references from 1228.4, etc.
  - Acute Psychiatric Basic Services (per H&S Code 71000)
    - No "general acute-care services" are included



**1228.4.1 Services/systems and utilities.** Services/systems and utilities shall only originate in, pass through or under structures which are under the jurisdiction of the Office of Statewide Health Planning and Development (OSHPD).



**1228.4.2 Means of egress.** Means of egress shall only pass through structures that are under the jurisdiction of the Office of Statewide Health Planning and Development (OSHPD).

\* Also see special requirements for locked units (I-2 with restraint)



#### Section 1226 Clinics [OSHPD 3]

- ☐ Clarification of Application
  - > Clinics licensed under H&S Code Section 1200
    - Primary Care Clinics
    - Specialty Clinics
      - Surgical Clinics
      - Chronic Dialysis Clinics
      - Alternative Birthing Clinics (ABCs)
      - Rehabilitation Clinics
    - Psychology Clinics
  - ➤ Also, Outpatient Clinical Services of a Hospital provided in a freestanding building under H&S Code Section 1250



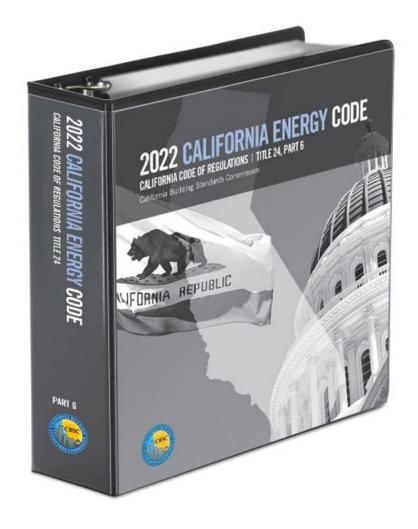
**1226.4.3.5 Contiguous functions.** Basic services of a single licensed clinic may be located in **separate suites**. Each clinic suite shall be **contiguous** and include internal circulation to access each of the required functions identified for that specific basic service.



#### **Exceptions:**

- 1. Various functions including, but not limited to **reception**, **waiting**, **staff support** areas such as toilets, storage, and lounge may located outside of the clinic suite with approval from the California Department of Public Health.
- 2. If **toilets and drinking fountain(s) serving the public** are provided as part of the overall building features, they need not be provided within the clinic suite.
- 3. **Shared services.** Space for general storage, laundry, housekeeping and waste management may be shared with other tenants.





# Part 6 California Energy Code





#### PART 1 – Reference to Part 6

#### **Chapter 7, Article 1 General**

**7-103. Jurisdiction.** The following are within the jurisdiction of Office of Statewide Health Planning and Development:

•••

(c) For hospital buildings, skilled nursing facilities and intermediate care facilities, the Office shall also **enforce the regulations** of the California Building Standards Code as adopted by **the California Energy Commission**, the Office of the State Fire Marshal and the Division of the State Architect/Access Compliance Section, for **Energy Conservation**, fire and life safety and accessibility compliance for persons with disabilities, respectively.



## PART 6 – Enforcement

- OSHPD Systems
  - Plan Review:
  - ✓ Exterior Assemblies & Detailing
  - **✓** Electrical Lighting Design & Specifications
  - ✓ Mechanical Systems Design & Specifications
  - ✓ Energy Code Modeling
  - Construction:
  - ✓ Continuous Inspection & Observation
  - ✓ Verified Reports
  - ✓ Commissioning & Occupancy

#### **CHAPTER 10**

#### ADMINISTRATIVE REGULATIONS FOR THE CALIFORNIA ENERGY COMMISSION (CEC)

#### ARTICLE 1 ENERGY BUILDING REGULATIONS

10-101, Scope

(a) This article contains administrative regulations relating to the energy building regulations in Title 24, Part 6. This article applies to all residential and nonresidential buildings.

(b) Nothing in this article lessens any necessary qualifications or responsibilities of licensed or registered building professionals or other designers or builders, or the duties of enforcement agencies, that exist under state or local law.

(e) If any provision of the regulations in this article or the Building Energy Efficiency Standards, Title 24, Part 6, of the California Code of Regulations is found invalid by a court of competent jurisdiction, the remainder of these regulations shall remain in effect.

Authority: Sections 25402 and 25402.1, Public Resources Code.

Reference: Sections 25402 and 25402.1, Public Resources Code.

HISTORY.

- New Article 1 (Section 1401) filed 5-3-76; effective thirtieth day thereafter (Register 76, No. 19).
- Amendment filed 8-17-77; designated effective 3-11-78 (Register 77, No. 34).
- Repealer of Article 1 (Section 1401) and new Article 1 (Sections 1401-1408, not consecutive) filed 12-9-81; designated effective 7-1-82 (Register 81, No. 50).
- Amendment filed 12-27-84; designated effective 1-1-85 pursuant to Government Code Section 11346.2 (d) (Register 84, No. 52).

10-102. Definitions. In this article the following definitions apply:

ACCEPTANCE REQUIREMENTS are "acceptance requirements for code compliance" as defined in Section 100.1(b) of Part 6

ACCEPTANCE TEST TECHNICIAN (ATT) is a Field Technician as defined in Section 10-102 who is certified by an authorized Acceptance Test Technician Certification Provider to perform acceptance testing of either lighting controls or mechanical systems pursuant to the requirements of Sections 10-103.1 or 10-103.2, respectively. ATTs are authorized to perform only those acceptance tests for which they are certified by an ATTCP; ATTs certified to perform accep-

"lighting control ATTs," and ATTs certified to perform acceptance testing of mechanical systems are sometimes referred to as "mechanical ATTs." (See "Field Technician" and "Acceptance Test Technician Certification Provider.")

ACCEPTANCE TEST EMPLOYER (ATE) is a person or entity who employs an Acceptance Test Technician and is certified by an authorized Acceptance Test Technician Certification Provider pursuant to the requirements of Sections 10-103.1 or 10-103.2. ATES are authorized to employ only those

ATTs for which they are certified by an ATTCP: ATEs certified to employ ATTs that perform acceptance testing of lighting controls are sometimes referred to as "lighting control ATEs," and ATEs certified to employ ATTs that perform acceptance testing of mechanical systems are sometimes referred to as "mechanical ATEs." (See "Acceptance Test Technician" and "Acceptance Test Technician" Certification Provider.")

#### ACCEPTANCE TEST TECHNICIAN CERTIFICA-

TION PROVIDER (ATTCP) is an agency, organization or entity approved by the Energy Commission to train, certify and oversee ATTs and ATTs relating to either lighting controls or mechanical systems according to the requirements of Sections 10-103.1 or 10-103.2, respectively. ATTCPs are authorized to certify only those ATTs and ATTEs for which they are approved by the Energy Commission; ATTCPs

tance testing of lighting controls are sometimes referred to as "lighting control ATTCPs," and ATTCPs approved to certify ATTs and ATTS relating to the acceptance testing of mechanical systems are sometimes referred to as "mechanical ATTCPs." (See "Acceptance Test Technician" and "Acceptance Test Employer.")

NOTE: Authority cited: Sections 25402, 25402.1, and 25213, Public Resources Code. Reference: Sections 25007, 25402(a)-(b). 25402.1, 25402.4, 25402.5, 25402.8 and 25910. Public Resources Code.

ACM means ALTERNATIVE CALCULATION METHOD are compliance software, or alternative component packages, or exceptional methods approved by the Commission under Sec-

exceptional methods approved by the Commission under Section 10-109. ACMs are also referred to as Compliance Software.

ACM APPROVAL MANUALS are the documents establishing the requirements for Energy Commission approval of Compliance Software used to demonstrate compliance with the Building Energy Efficiency Standards for Residential and Nonresidential Buildings currently adopted by the Energy Commission.

ACM REFERENCE MANUAL is the document establishing the procedures required to implement Sections 140.1 and 150.1 of Title 24, Part 6 of the California Code of Regulations in Compliance Software.

ADDITIONALITY is a property of solar offsets whereby the offset causes additional benefits beyond what would occur as a result of all other actions, and which would exclusively benefit the building or property for which the offset substitutes for compliance obligations that would otherwise be required for that building or property, and those benefits would not ever be transferred to other buildings or property.

2019 CALIFORNIA ADMINISTRATIVE CODE



# PART 6 – California Energy Code (CEC)

#### **Application to Remodel Projects**

OSHPD versus CEC Definition of "Alteration"

#### What's the Difference?

#### **OSHPD:**

[A] ALTERATION. Any construction or renovation to an existing structure other than repair or addition.

[DSA-AC] A change, addition or modification in construction, change in occupancy or use, or structural repair to an existing building or facility.



# PART 6 – California Energy Code (CEC)

#### **Application to Remodel Projects**

#### CEC:

ALTERATION is any change to a building's water-heating system, space-conditioning system, lighting system, electrical power distribution system, or envelope that is not an addition.

Alteration is also any change that is regulated by Part 6:

- to an outdoor lighting system that is not an addition
- > to signs located either indoors or outdoors
- to a covered process that is not an addition (fenestration)



# PART 6 – California Energy Code (CEC)

SECTION 141.0
ADDITIONS, ALTERATIONS AND REPAIRS
TO EXISTING NONRESIDENTIAL, HIGH-RISE
RESIDENTIAL, AND HOTEL/MOTEL
BUILDINGS, TO EXISTING OUTDOOR
LIGHTING, AND TO INTERNALLY AND
EXTERNALLY ILLUMINATED SIGNS

Additions, alterations, and repairs to existing nonresidential, high-rise residential, and hotel/motel buildings, existing out-door lighting for these occupancies, and internally and externally illuminated signs, shall meet the requirements specified in Sections 100.0 through 110.10, and 120.0 through 130.5 that are applicable to the building project, and either the performance compliance approach (energy budgets) in Section 141.0(a)2 (for additions) or 141.0(b) 3 (for alterations), or the prescriptive compliance approach in Section 141.0(a)1 (for additions) or 141.0(b)2 (for alterations), for the Climate Zone in which the building is located. Climate zones are shown in Figure 100.1-A.

Covered process requirements for additions, alterations and repairs to existing nonresidential, high-rise residential, and hotel/motel buildings are specified in Section 141.1.

Exception to Section 141.0: Alterations to healthcare facilities are not required to comply with this Section.



# PART 1 – Building Energy Efficiency Program

#### 7-118. Building Energy Efficiency Program.

Projects that consist of any **new** elements related to A thru D shall include a Building Energy Efficiency Program **with the submittal**. The Program shall describe how the design of the building systems meets the owner's project requirements and include the associated Basis of Design (BOD) document required under Title 24, Part 6. The BOD shall describe the building systems to be commissioned, outline design assumptions, describe how the building systems design meets the owner's project requirements, and why the systems were selected. The BOD shall cover the following systems and components as described in the Building Energy Efficiency Standards, Nonresidential Compliance Manual:

- A. HVAC systems efficiencies
- B. Indoor lighting systems efficiencies
- C. Water heating systems efficiencies
- D. Building envelope considerations



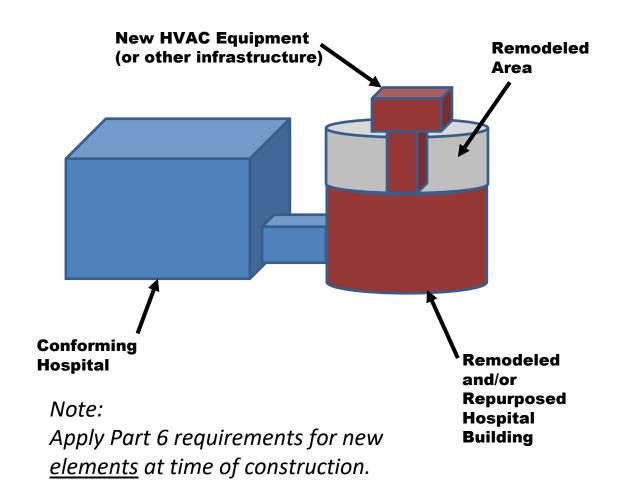
**ENERGY COMMISSION** 

## **Energy Practices for Remodels**

- New Lighting & Controls
  - ☐ Meets Part 6
- New HVAC Equipment (units, chillers, etc.)
  - ☐ Meets Part 6 (SEER)
- New Ventilation Shaft

(for future build-out)

☐ Meets Part 6 (duct testing)





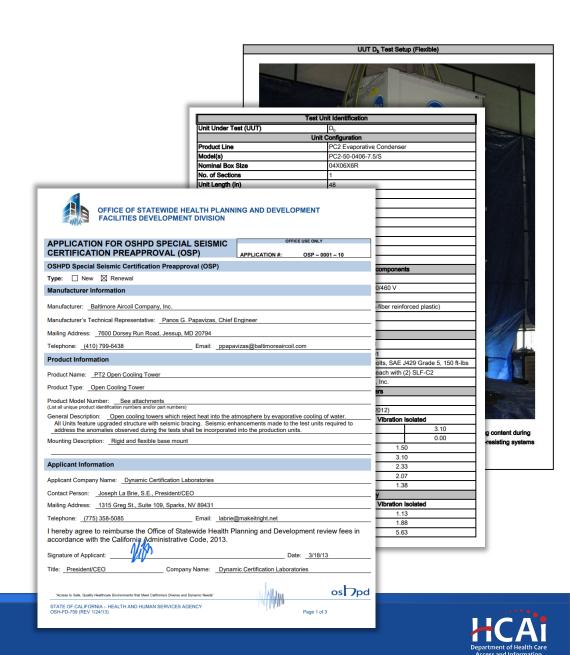


- OSHPD Preapproved Manufacturer (OPM)
- OSHPD Preapproved Details (OPD)

OPD can be modified for site specific conditions if the DPOR stamps and signs the revised details and OSHPD approval is obtained

- OSHPD Special Seismic Certification Preapproval (OSP)
- Preapproved Laboratory (OPAA)

No substitutions of products!



#### **ARTICLE 3 APPROVAL OF CONSTRUCTION DOCUMENTS**

Section 7-115. Preparation of construction documents and reports



- (d) The specification and use of pre-approvals does not preempt the plan approval and building permit process
  - ➤ The registered design professional, in conjunction with the registered design professional in responsible charge, listed on the plan review application or the building permit application, shall review all qualities, features, and/or properties to ensure code compliance, appropriate integration with other building systems, and proper design for the project-specific conditions and installation. Stamping and signing of construction documents as required in subsection (a) and (b) shall be for this purpose only.



#### ARTICLE 3 APPROVAL OF CONSTRUCTION DOCUMENTS

#### Section 7-115. Preparation of construction documents and reports

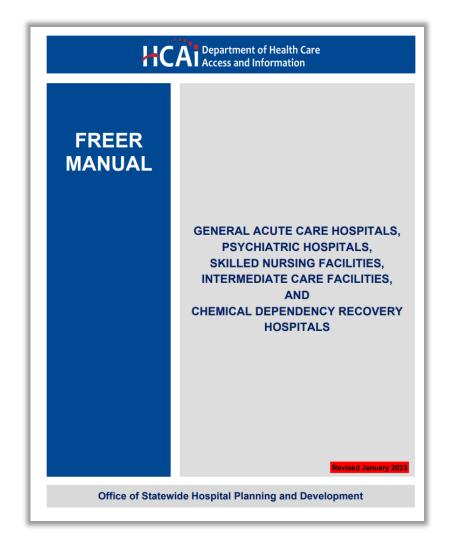
- When pre-approvals are used, they shall be incorporated into the construction documents. **Incorporation by reference only is not permitted.** Pre-approvals must be incorporated without any modification. This subsection shall not apply if modifications are made to the preapproved details.
- ➤ Pre-approvals submitted after the construction documents have been approved and a building permit has been issued shall be incorporated into the construction documents in accordance with Section 7-153.





- FREER Manual
  - When is a Permit Required?

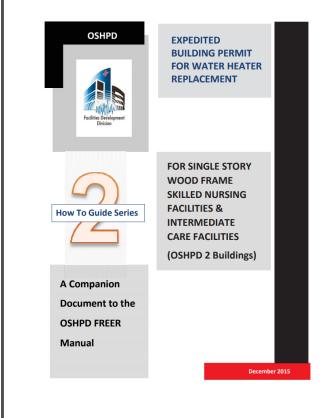
ARCHITECTURAL – Continued							
Category/Item	Excluded - CO Confirmation Required	Field Review Required	Office Expedite Review	Remarks			
DOOR WINDOW Changing a window opening to a door opening		<b>✓</b>		No increase in opening width. Must meet accessibility requirements			
FINISHES  Painting, wall coverings, ceiling finishes and similar finish work in existing facilities	<b>√</b>			See Table 1224.1			
FOUNTAINS Installing interior drinking and decorative fountains.			<b>✓</b>				
HANDRAILS Replacement of handrails in corridors		<b>√</b>		See Handrail Replacement Criteria, Section XI(e)			
<b>LADDERS</b> Fixed Ladders			<b>√</b>	Fixed ladders attached to the structure			
PORTABLE PARTITIONS AND WORK STATIONS that are not open to or within the corridor or exit system	<b>√</b>			Excluded if 5"-9" or less in height and not permanently connected (hardwired) to the			





#### How To Guides









# REMODEL



Question: What is a Remodel?

Answer: An Alteration.

#### Question: What is an Alteration?

- Alteration Defined
  - Any construction or renovation to an existing structure other than repair or addition. CBC 202
  - Alteration means any change in an existing building which <u>does not increase</u> and may decrease the floor or roof area or the volume of enclosed space.

    CAC 7-111



- Existing Structures
  - The legal occupancy of any structure existing on the date of adoption of this code <u>shall be permitted to continue without change, except as is specifically provided in this code</u>, the *California Existing Building Code*, the *International Property Maintenance Code*, the *California Fire Code*, or as is deemed necessary by the building official for the general safety and welfare of the occupants and the public. CBC 102.6



#### When does CAN 2-102.6 apply?

- Existing Structures
- Additions, Renovations, Alterations or Repairs
  - Additions, renovations, alterations, or repairs shall conform to that for a new system without requiring the existing systems to be in accordance with the requirements of this code. Additions, renovations, alterations, or repairs shall not cause an existing system to become unsafe or create unhealthy or overloaded conditions. CMC/CPC 102.4
  - Additions, alterations, renovations, or repairs to existing systems shall comply with the provisions for new construction, unless such deviations are found to be necessary and are first approved by the Authority Having Jurisdiction. CMC/CPC 102.4



- > Addition An extension or increase in floor area or height of a building or structure
- **Renovation** an update to an existing building or a return to a new condition
- Alteration A change, addition or modification in construction, change in occupancy or use, or structural repair to an existing building or facility. Alterations include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historic restoration, resurfacing of circulation paths or vehicular ways, changes or rearrangement in rearrangement of the structural parts or elements, and changes or rearrangement in the plan configuration of walls and full-height partitions. Normal maintenance, reroofing, painting or wallpapering, or changes to mechanical and electrical systems are not alterations unless they affect the usability of the building or facility (DSA) CBC 202
- **Repair** The reconstruction or renewal of any part of an existing building for the purpose of its maintenance or to correct damage *cBC 202*



#### When does CAN 2-102.6 apply?

- Existing Structures
- Additions, Alterations or Repairs
- Changes in Building Occupancy or Use
  - ➤ Building systems that are a part of a building or structure undergoing a change in use or occupancy, as defined in the building code, shall be in accordance with the requirements of this code that are applicable to the new use or occupancy. CMC/CPC 102.6



#### **CBC 202**

- Path of Travel Defined
  - An identifiable accessible route within an existing site, building or facility by means of which a particular area may be approached, entered and exited, and which connects a particular area with an exterior approach (including sidewalks, streets and parking areas), an entrance to the facility, and other parts of the facility.
  - When alterations, structural repairs or additions are made to existing buildings or facilities, the term "path of travel" also includes the toilet and bathing facilities, telephones, drinking fountains and signs serving the area of work.



#### CBC 11B-202.4

- Path of Travel
  - Primary Entrance
  - Toilet and Bathing Serving the Area
  - Drinking Fountains Serving the Area
  - Public Telephones Serving the Area
  - Signs



#### Examples of Path of Travel (PoT)

- Staff, Public or Patient Toilets
- Accessible Drinking Fountains
- Accessible Public Phones
- Site Modifications
- Mixed project where 90% is exempt from PoT upgrades and 10% is not what to do?



- Exceptions to Path of Travel Upgrades
  - Residential Dwellings
  - If in compliance with current code or immediately preceding edition
  - Additions or Alterations to Meet Accessibility Requirements
  - Alterations of Existing Parking Lots
  - Addition or Replacement of Signs
  - Projects Consisting only of Heating, Ventilation, AC, Reroofing, Electrical Work, Cosmetic Work
  - When adjusted Construction Cost Doesn't Exceed Current Valuation Threshold 20%
  - Alterations for Installing Electric Vehicle Charging Stations.



- ICRA Expectations and Protocols
  - Interim Life Safety Measures (ILSM) vs
    - Infection Control Risk Assessment (ICRA)
  - Should this be in the drawings?
  - Barrier & Phasing





## **ILSM**

ILSM on Drawings

Temporary Fire Rated walls will be inspected so they need to be shown

Setting up temporary walls is a critical path activity

Site investigation to determine conditions and what details are needed

Consider clearances when locating temporary walls. Note that contractors need 2' beyond any fire rated temporary wall to set up a dust free barrier while the hard framed temporary wall is built.

Hard Framed temporary barriers have all of the standard inspections (framings & screw pattern). If wedge anchors are used in the bottom track these add a day to the process in order to let them set for 24hrs before being torque tested.





### **ILSM**

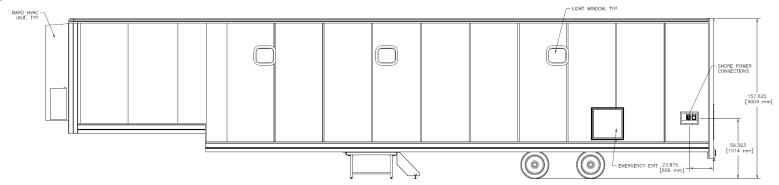
- Methods of Procedures
  - OSHPD vs CDPH Roles
  - Interruption of Services During Construction
  - Operation of Patient Services During Construction
  - When Shown on Plans?

Note: Not to be confused with welding procedures, etc.



## TEMPORARY EQUIPMENT / UTILITIES

- Air Balance
- Generators
- Air Handling Units
- Pharmacy Compounding Mobile Units
- Temporary vs Interim





## OSHPD 1R UNIQUE CONSIDERATIONS

- REMOVED FROM ACUTE CARE SERVICE [OSHPD 1R]
  - Buildings that previously provided basic and/or supplemental services, as defined in Section 1224.3, that have
    - Primarily Remodels
    - been removed from acute care service in compliance with Part 10 California Existing Building Code Chapter 3A,
    - and remain under the jurisdiction of the Office of Statewide Health Planning & Development (OSHPD).



## OSHPD 1R UNIQUE CONSIDERATIONS

- The removal of General Acute Care Hospital (GACH) services from a building may result in a change of:
  - Use
  - Occupancy
  - Function
  - Licensure
  - A combination of the above for all or a part of the building
- It may also involve a change of the authority having jurisdiction from OSHPD to the local enforcement agency if the SPC Building meets specified seismic separation and fire protection criteria (i.e. "Freestanding")



## VACATED SPACES

#### CEBC Section 309A.6

With the removal of general acute care services, the vacated space must be re-classified with an intended occupancy as required under CBC 302 (Occupancy Classification).

If the hospital determines that the building or space in the SPC building removed from general acute care service will be vacant, the hospital shall demonstrate that unsafe conditions as described in CBC 116.1 are not created.



#### **VACATED SPACES**

#### **Vacant Spaces:**

**Requires Building Permit to Address:** 

- Unsafe, Insanitary
  - Deficiencies from Inadequate:
    - Means of Egress
    - Lighting
    - Ventilation
- Fire Hazards
  - Dangers to:
    - Human Life
    - Public Welfare



- Unsafe Conditions DueTo:
  - Illegal Occupancy
  - Improper Occupancy
  - Inadequate
     Maintenance
  - Unsecured Against
     Unauthorized Entry



#### START OF CONSTRUCTION

- Notice Of Start of Construction cac 7-137
  - As soon as a contract has been awarded, the governing board or authority of the health facility shall provide to the Office, on a form provided by the Office, the following:
    - 1. Name and address of the contractor
    - 2. Contract price
    - 3. Date on which contract was awarded
    - 4. Date of construction start



## **CONSTRUCTION PERMIT SET**

- Permit Set on Site During Construction
  - Paper vs. Electronic plans
- Paper vs. Electronic Code Books
- Electronic Review for ACDs
- Remember: The log of changes to the work is prepared and maintained by the DPOR. The IOR needs to have access to either a paper copy or electronic copy of the most current log.





### SUSPENSION OF CONSTRUCTION

**Notice of Suspension of Construction:** CAC 7-139

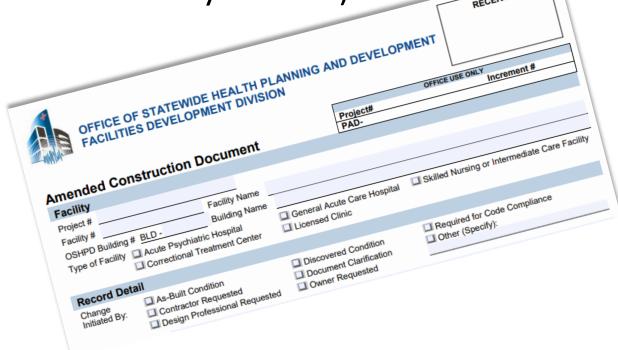
- (a) When construction is suspended for more than two weeks, the governing board or authority of the hospital shall notify the Office in writing.
- (b) If the work of construction is suspended or abandoned for any reason for a period of one year following its commencement, the Office's approval shall become void.





## REVIEWS DURING CONSTRUCTION

- Amended Construction Documents
- Using Preapproved Details (Non-materially Altered)
- Deferred Approvals
- > ASIs
- Not Submittals
- Not Shop Drawings





## CONSTRUCTION IN AN OPERATING FACILITY

- Methods of Procedures (MoPs)
  - OSHPD Does Not Approve (may review if construction is involved show on documents)
  - Used for Interruption of Services During Construction
  - Patient Services to Remain in Operation During Construction
  - CDPH may Need to Review
  - Local Jurisdictional Requirements
    - On-site Trailer/Storage Placement
    - Recycling Construction Debris
    - Interim Life Safety Measures



## CONSTRUCTION IN AN OPERATING FACILITY

- Unauthorized Work found during construction (CAC 7-128)
  - "\underset" Project INV
  - > T&M
  - May delay current project
  - May restrict future projects





## CONSTRUCTION IN AN OPERATING FACILITY

#### Construction in an Operating Facility

- Minimum Code Compliance Exiting during construction
  - 6' Clear Corridor exiting to a 4' ADA Sidewalk
  - If exiting adjacent to a construction zone walkway must be protected for a length per Table 33016 of Chapter 33 in the CBC
  - Patients must have access to a covered drop offpick up location
  - Exit routes must meet code required minimum light levels and maintain sprinkler coverage





#### What is required for ICRA

- Coordinated between GC and authorized Facilities representatives to classify the type of construction and the sensitivity of the area
- Post Disruption Notices (DN) & Methods of Procedures (MOP) in workspace for reference
  - Review ILSM with IOR/CO/FLSO as necessary
  - Review ICRA with hospital infection control specialist.
  - Get Signatures!

#### INFECTION CONTROL MATRIX OF PRECAUTIONS FOR CONSTRUCTION AND RENOVATION

Circle appropriate component and follow detailed work controls as outlined belo

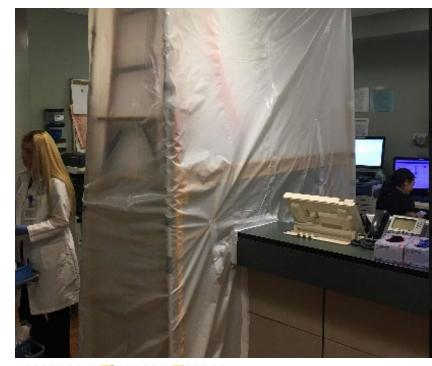
			CONSTRUCTION	ACTIVITY			
Risk Level		Type A: inspection, non- invasive activity	Type B: Small scale, short duration, minimal dust generating	Type C: Moderate to levels of dust; duration than one shift			
					II/IV		
	medium risk)	-	II	III			
			III/IV	IV IV			
			inimize raising dust from				
CLASS I	Execute wo construction     Immediate inspections	Work area will be clea	npletion of Project ned if necessary.				
CLASS II	dispersing i 2. Water mist 3. Seal unuse 4. Block off ar	nto atmosphere. work surfaces to co d doors with duct ta nd seal air vents as n	ecessary	Contain constransport in     Wet mop an filteredvacu     Wipework sicleaner/disis     Upon compliareas where	nfectant etion restore HVAC syst work is being performe		
CLASS III	prevent coi 2. Complete a 3. Maintain n HEPA equip 4. Contain coi covered co 5. Cover trans unless solic 6. Place dust 7. Wet mop a	ntamination of duct all critical barriers be egative air pressure sped air filtration uni nstruction waste bef ntainers. sport receptacles or filid. mat at entrance and	fore construction begins, within work site utilizing its, ore transport in tightly carts. Tape covering	Follow Class     Do not remountil comple cleaned by E Department     Remove bar minimize sp associatedw     Vacuum wor vacuums.     Wet mop an	rier materials carefully t reading of dirt and debri Ath construction. Ik area with HEPA filters ea with cleaner/disinfec		
CLASS IV	Implement     Seal holes,     Construct a     through th     HEPA vacu     wear cloth     timethey!      All personn     shoe cover:     the worker     Provide adl	all of Class III measu pipes, conduits, and mrteroom and requin s room so they can I am cleaner before le or paper coveralls the eave the work site in el entering work site; s. Shoe covers must exits the work area, nesive walk-off mat:	punctures appropriately. e all personnel to pass be vacuumed using a awing work site. They can sat are removed each stead of vacuuming. e are required to wear be changed each time	Upon Con 1. Follow Class	<b>opletion of Project</b> III guidelines. oort receptacles or carts		

Replace Pr	Replace Primary on Monday, Wednesday & Friday								
Replace Se	condary on	Monday							
Replace HE	PA 1st of e	very month							
		Mook	of				14714		

	Week of				Week of				
	Mo	nday	Wednesday	Friday		Monday		Wednesday	Frid
Hepa Scrubber #	Replace Primary	Replace Secondary	Replace Primary	Replace Primary	Replace Primary	Replace Secondary	Replace HEPA	Replace Primary	Replace
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
				1	•	1	1		



- ICRA Expectations and Protocols:
- Who is accountable
  - Patient care, infection control, worker safety involves everyone
  - Facility is responsible for establishing the criteria
  - GC is responsible for the means of ensuring the protective layer
  - Everyone that enters the construction area is responsible for following the established protocol







- ICRA Expectations and Protocols:
- Who inspects the ICRA
  - GC Daily
    - Barrier Integrity
    - Pressure relationships
    - Air Filter Maintenance
    - Fire Alarm System access
    - Access & Debris
  - Facilities
    - > Prior to set up and after tear down at a minimum
    - Periodic visit to ensure standards are being followed





# Temporary Equipment/Utilities

- The duration that temporary utilities will be in place drives what level of requirements the system will need to be design to.
- Reference Can 2-108

#### CODE APPLICATION NOTICE (CAN)

	Short-Term Temporary Permit 7-day maximum	Mid-Term Temporary Permit 30-day maximum	Long-Term Temporary Permit 180-day maximum
Temporary chillers	Temporary chillers located outdoors, the pressure relief shall be located a minimum 10 feet from windows or outside air intake locations.	Temporary chillers located outdoors, the pressure relief shall be located a minimum 10 feet from windows or outside air intake locations.	Temporary chillers located indoors shall comply with all requirements of CMC Chapter 11. If located outdoors, the pressure relief shall be located a minimum 10 feet from windows or outside air intake locations.
Flexible ductwork	Flexible ductwork is permitted between the temporary unit and the hard duct system.	Flexible ductwork is permitted for distances up to <u>25 feet</u> in length.	Flexible ductwork is permitted for distances up t 25 feet in length.
Flexible piping	Flexible piping, rated for the pressure and media, is permitted between the temporary unit and the rigid piping system.	Flexible piping rated for the pressure and media is permitted for distances up to 25 feet maximum in length.	Flexible piping rated for the pressure and media is permitted for distances up to 10 feet in length
Seismic bracing of temporary piping, conductors and ductwork	Short-term temporary piping, conductors and ductwork do not require seismic bracing.	Mid-term temporary piping, conductors and ductwork do not require seismic bracing.	Long-term temporary piping, conductors and ductwork shall be secured/supported. Seismic design for supports and attachments of long-ten temporary piping, conductors and ductwork is nequired.
Protective barriers	Barriers shall be provided for pipes, ducts and conductors associated with temporary equipment to protect them from physical damage. Short-term temporary utilities shall not be subjected to vehicular traffic.	Barriers shall be provided for pipes, ducts and conductors associated with temporary equipment to protect them from physical damage. Temporary utility lines subject to vehicular traffic shall be placed in trenches covered with traffic-rated plates. Temporary fuel gas service shall be protected against damage per CPC Section 1207.0.	Barriers shall be provided for pipes, ducts and conductors associated with temporary equipment to protect them from physical damage. Temporary utility lines subject to vehicular traffic shall be placed in trenches with backfill and covered with traffic-rated plates. Temporary fue gas service shall be protected against damage per CPC Section 1207.0.
Protection of temporary electrical equipment	Short-term temporary electrical equipment and cables shall be protected from physical damage and guarded with suitable fencing, barriers, or other effective means to limit access only to authorized and qualified personnel per CEC Article	Mid-term temporary electrical equipment and cables shall be protected from physical damage and guarded with suitable fencing, barriers, or other effective means to limit access only to authorized and qualified personnel per CEC Article 590.	Long-term temporary electrical equipment and cables shall be protected from physical damage and guarded with suitable fencing, barriers, or other effective means to limit access only to authorized and qualified personnel per CEC Article 590.



## AMENDED CONSTRUCTION DOCUMENTS (ACDs)

#### Materially Altered CAN 2-107.4. NOW 2019 CAC 7-153

- OSHPD will only review changes made during construction that materially alter the work.
- If calculations by a structural engineer are necessary to determine structural or nonstructural adequacy, an ACD must be submitted to OSHPD for review.
- If the architect or engineer in responsible charge of a project determines that plans and/or specifications are necessary for a change that does not materially alter the work, all such plans or specifications shall be stamped and signed by the appropriate design professional(s) pursuant to Section 7-115 of the 2010 CAC.
- All changes in the work are subject to the concurrence of OSHPD field staff as to whether or not the change materially alters the work.
- If DPOR determines change is Non-materially Altered, can proceed "at risk."
- If Field Review is requested, field staff must be contacted to schedule review.



# Architect's Supplemental Instruction (ASI)

#### Non-Materially Altered Criteria

- Clarification and interpretation of plans and specifications by the responsible design professional
- 2. Construction means and methods, such as construction sequencing, coordination of the work, and methods of assembly/construction
- 3. Substitutions of **equipment**, products, or materials
- 4. New details that are based on other approved details, in whole or in part, including referenced standards or preapproved details
- 5. Final routing configurations of ducts, conduits, pipes, etc. where these are shown diagrammatically on the approved plans





# Architect's Supplemental Instruction (ASI)

#### Non-Materially Altered Criteria (cont.)

- 6. Dimensional changes to rooms, other than Incidental Use Areas, that do not affect code required minimum dimensions, fixed dimensions, minimum room or space requirements and required clearances
- 7. Relocation of doors, windows, electrical switches and outlets, plumbing fixtures, etc. that do not require additional changes to the work to make the relocation code compliant
- 8. Relocation or reconfiguration of cabinetry that does not affect code required minimum dimensions and clearances, minimum room or space requirements, minimum storage requirements
- 9. All documents/drawings including ASIs, NMAs, etc. shall be stamped/singed by the DPOR per CAC 7-153.



