

# NPC 3, 4, 4D and 5 Requirements & PIN 75 (AB 1882) Hospital Public Notices

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Supervisor, Seismic Compliance Unit

June 20, 2023

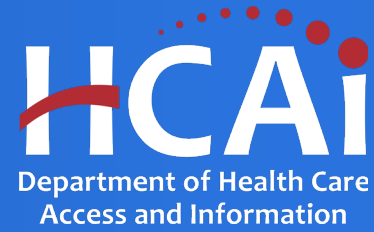


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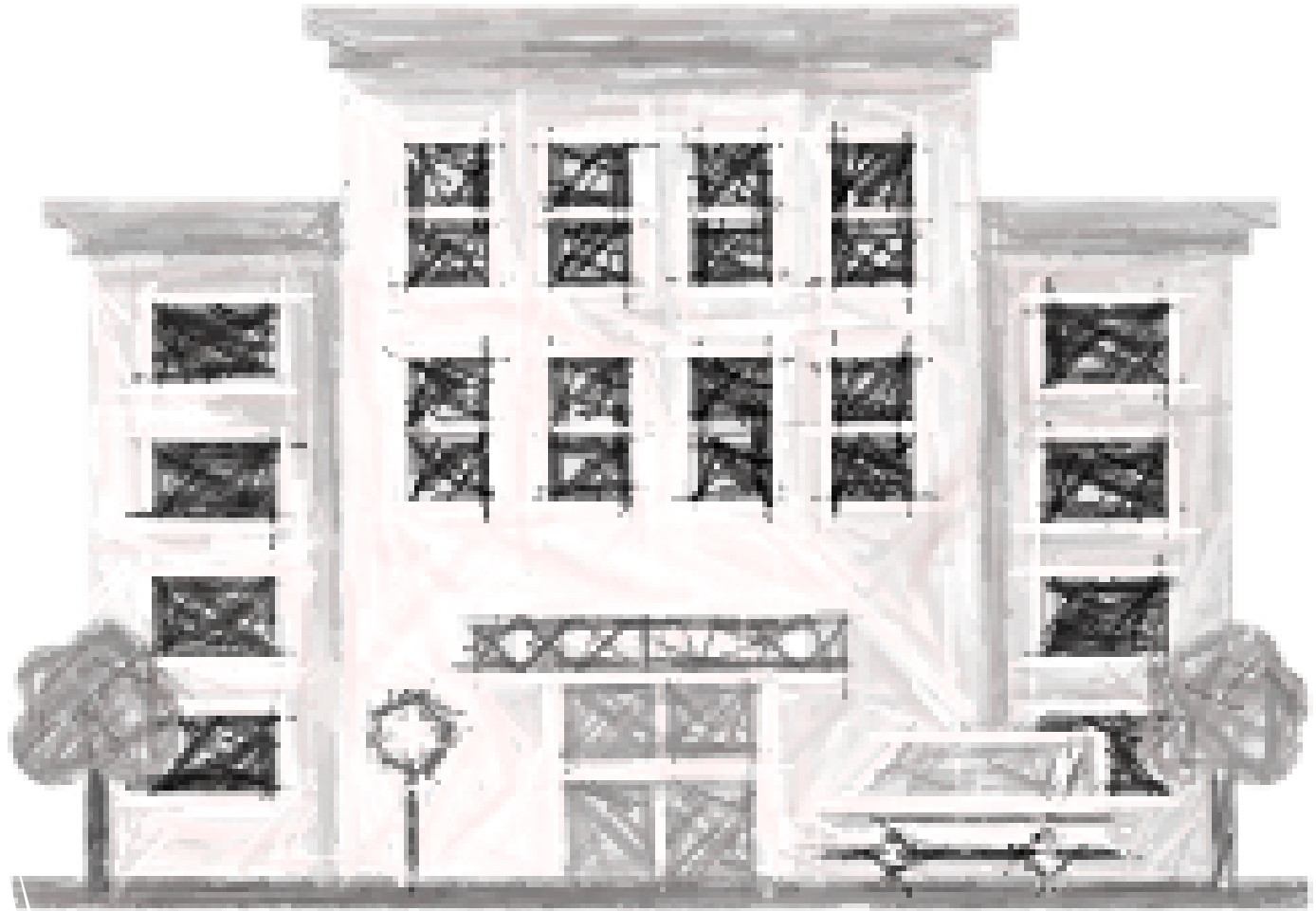
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NPC 3, 4, 4D and 5 Requirements  
PIN 75 (AB 1882) Hospital Public Notices



# NPC 3, 4, 4D and 5 Requirements

# Hazards

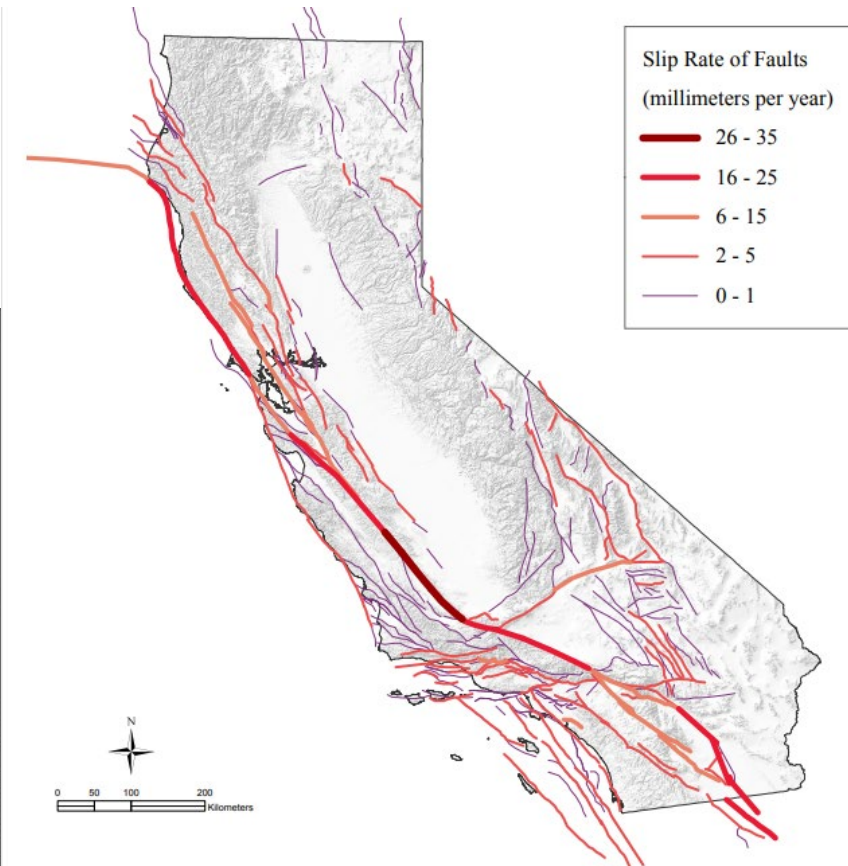
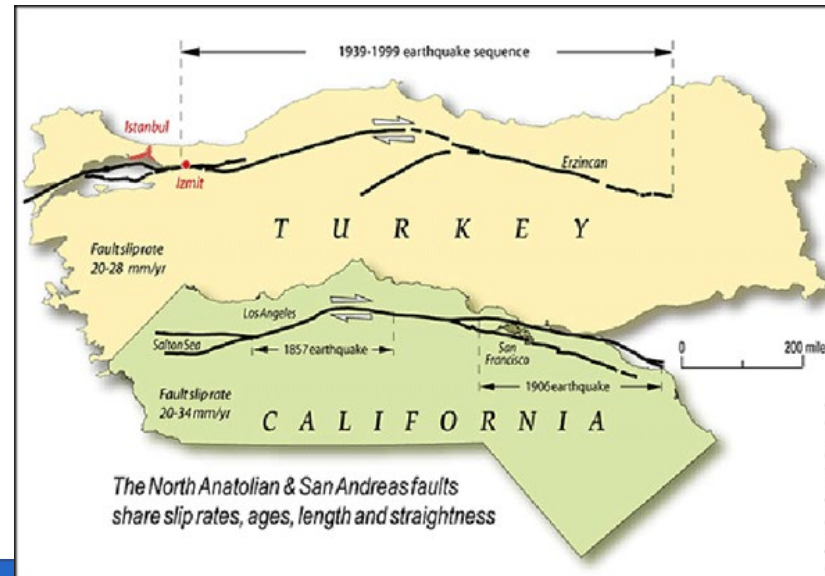
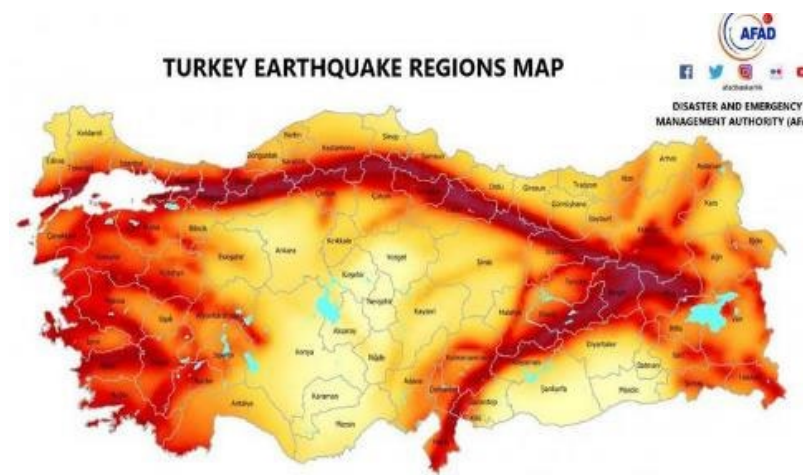
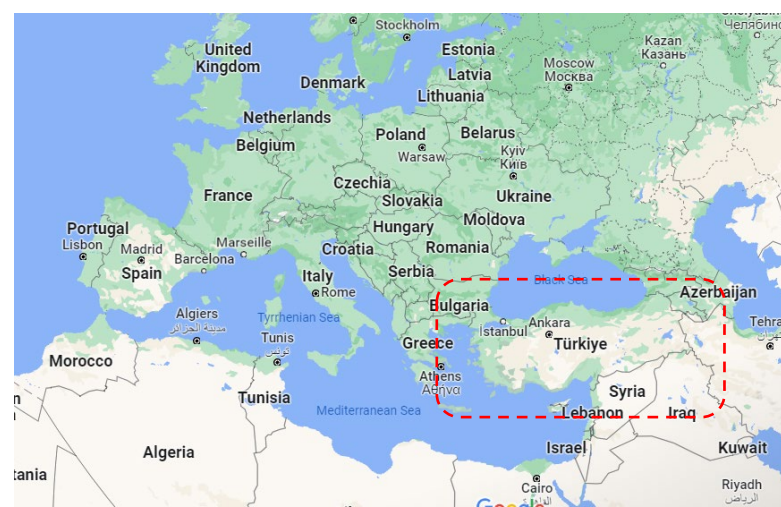




# Northridge Earthquake (6.7 Magnitude Earthquake)

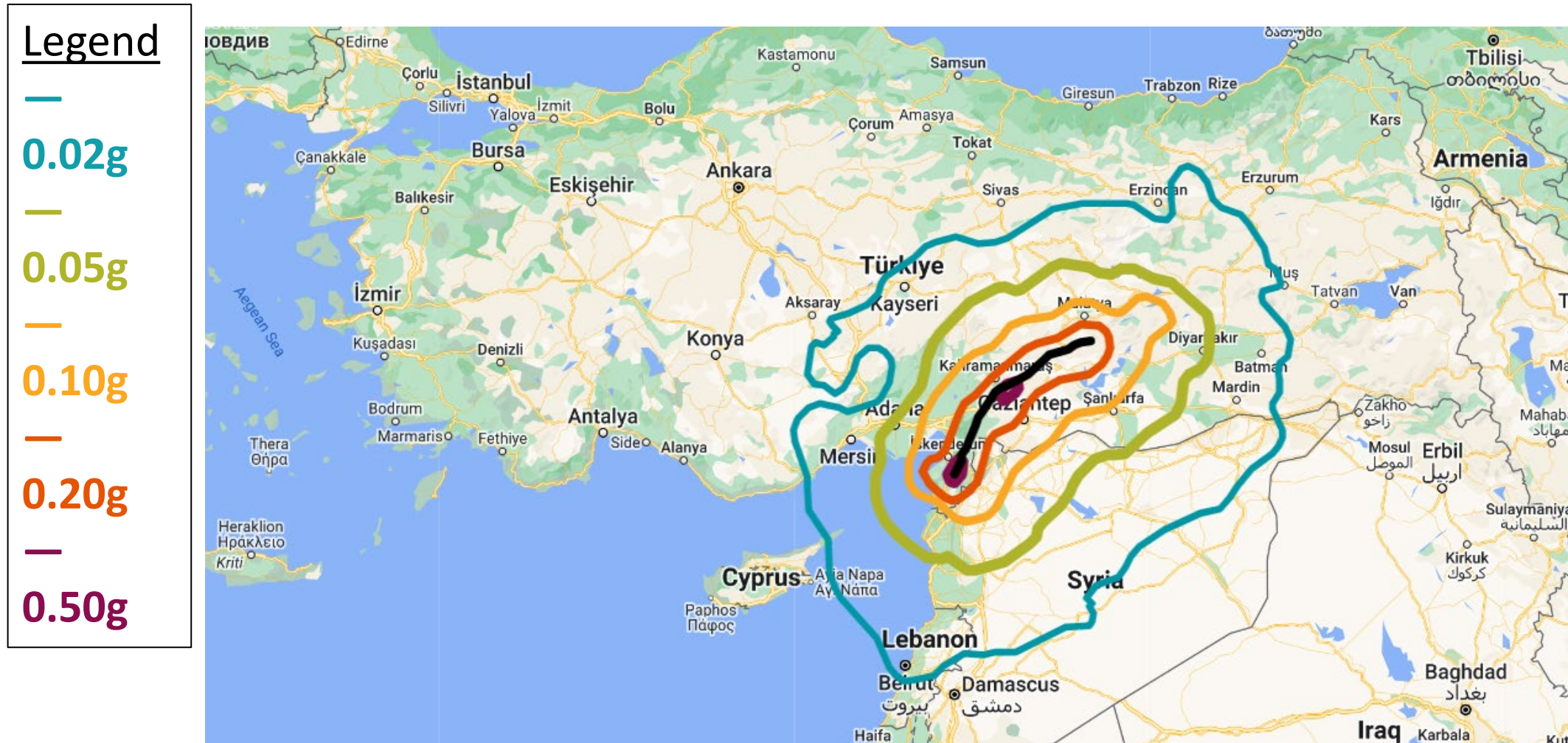
Performance of all Buildings at 23 Hospital Sites with One or More Yellow or Red Tagged Buildings		
Type of Damage	Number (%) of Buildings	
	Pre Act	Post Act
<b>Structural Damage</b>		
Red tagged	12 (24%)	0 (0%)
Yellow tagged	17 (33%)	1 (3%)
Green tagged	22 (43%)	30 (97%)
<b>Nonstructural Damage</b>		
Major	31 (61%)	7 (23%)
Minor	20 (39%)	24 (77%)
<b>Total Buildings</b>	<b>51</b>	<b>31</b>

# Seismicity in Türkiye is Similar to California





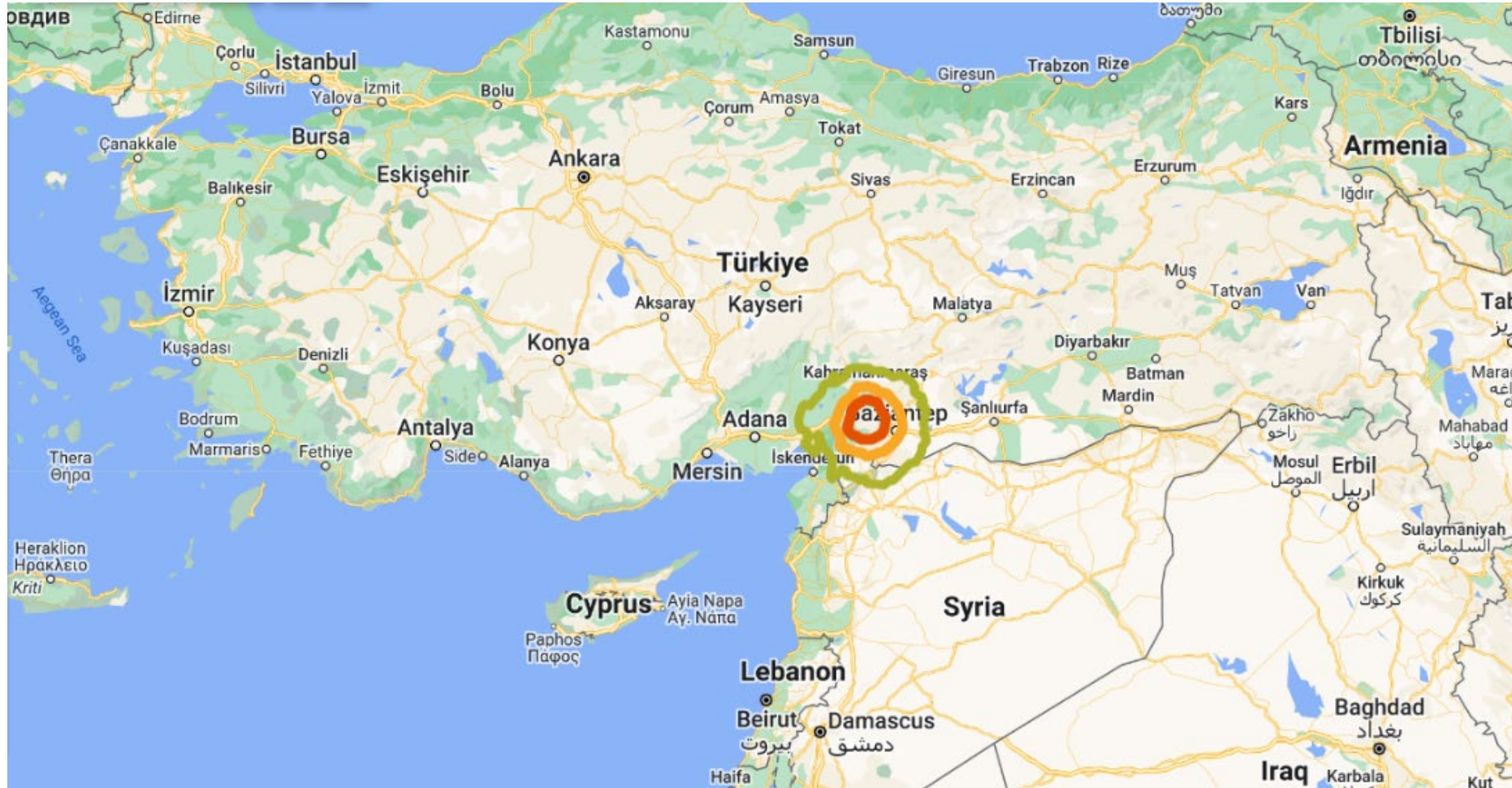
# 7.8 Magnitude Event - 4:17am Feb 6, 2023



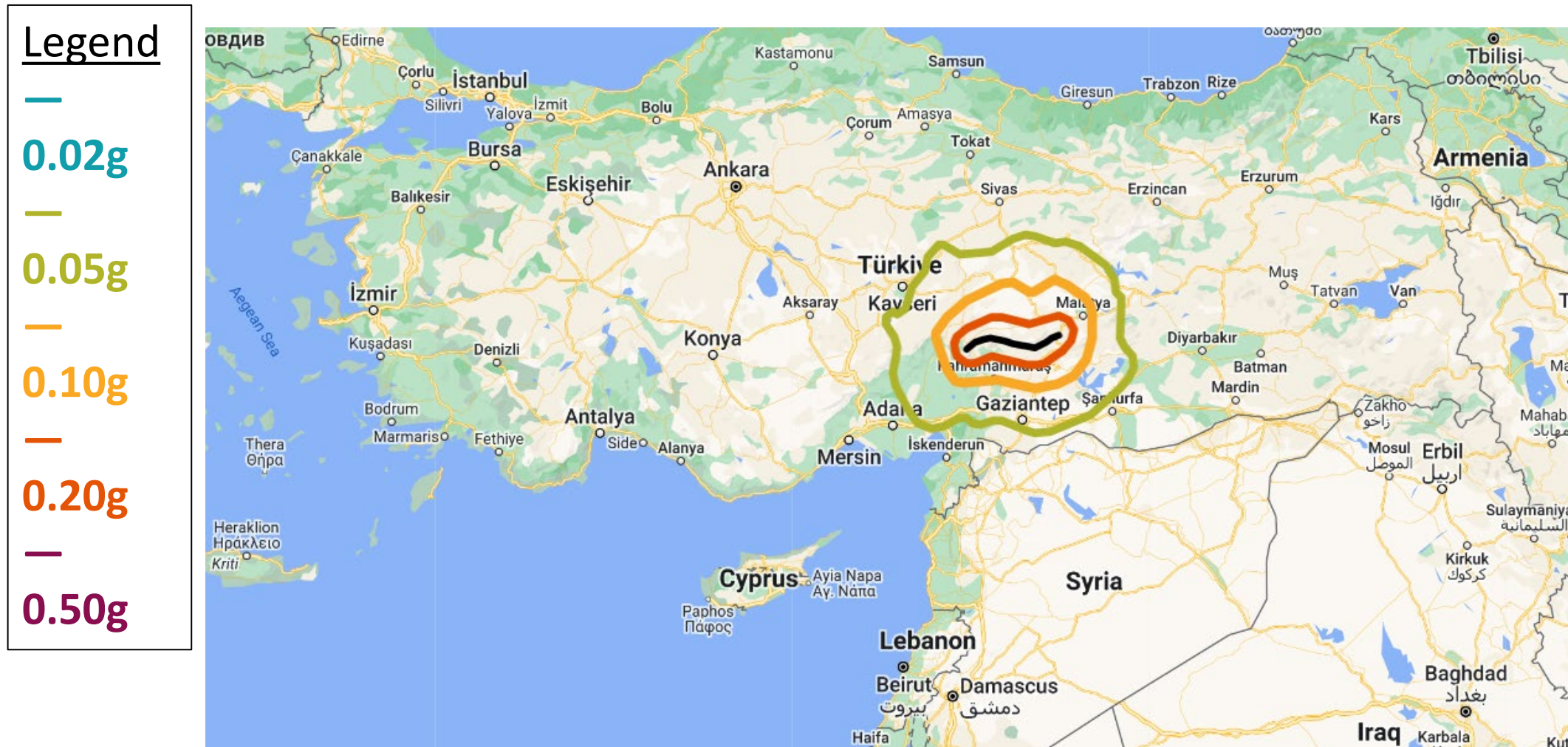


# 11 minutes later - 6.7 event, aftershock

## Legend



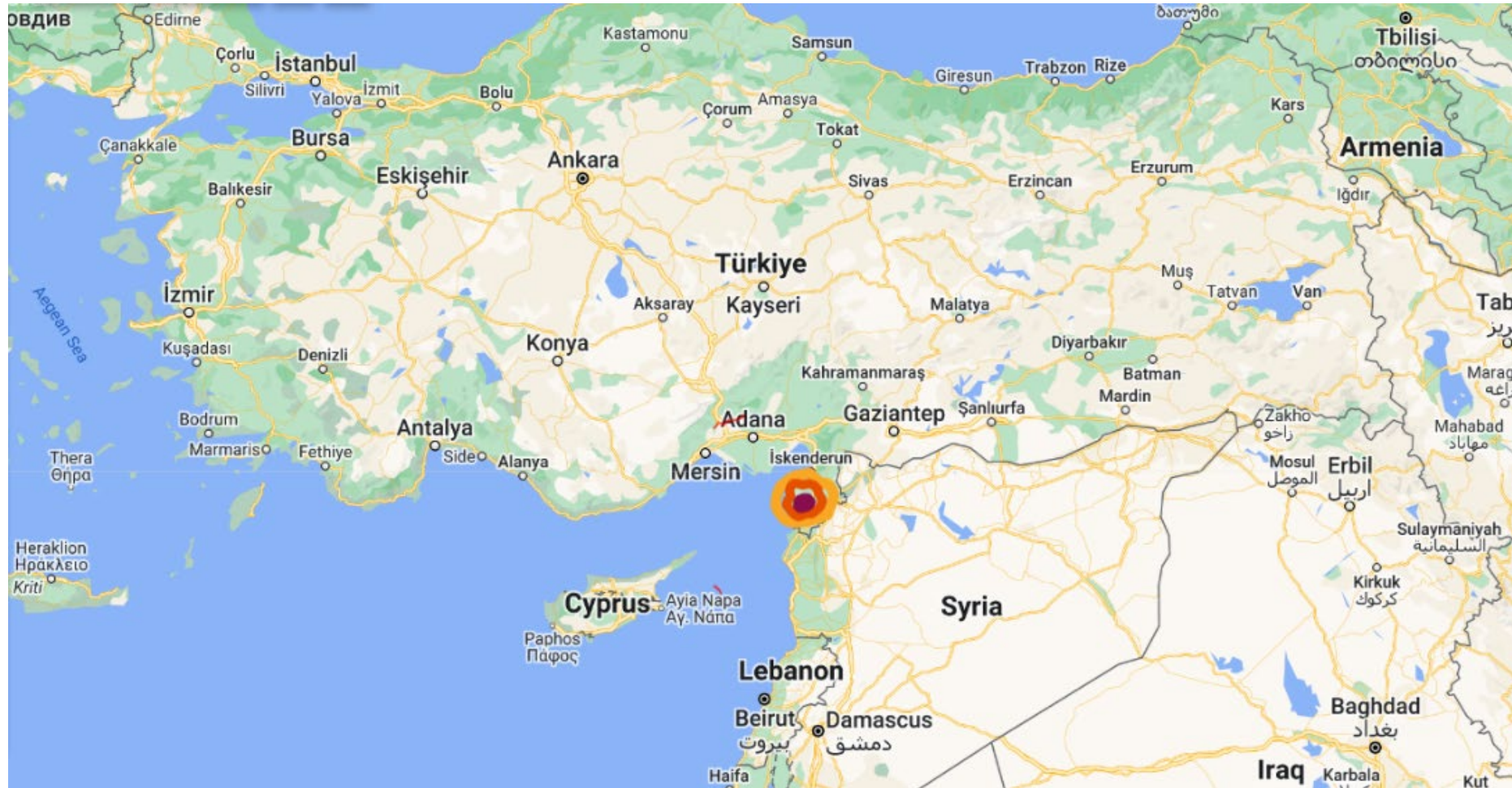
# 9 hours later – 7.7 magnitude event (the 2nd EQ)





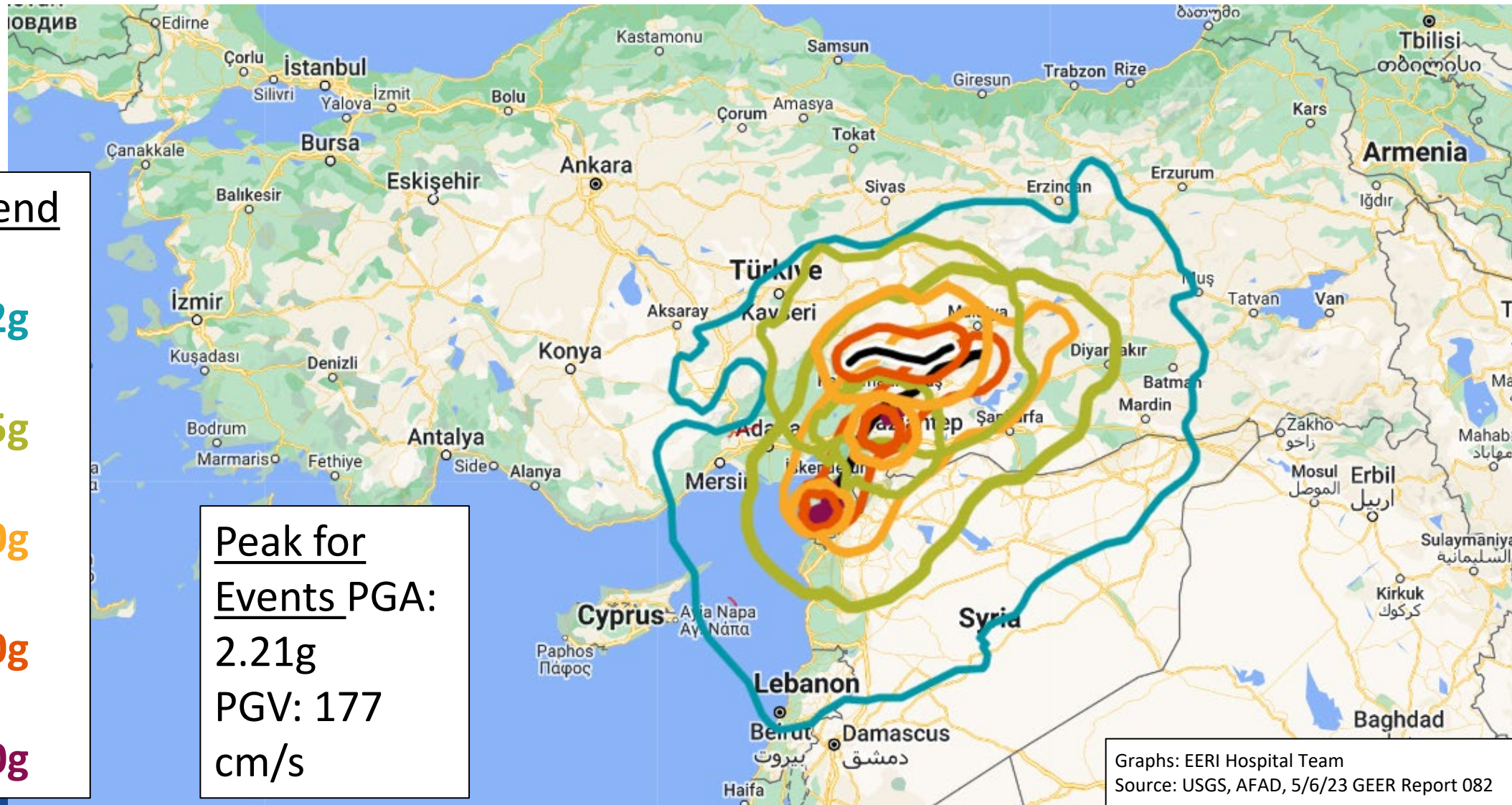
# 2 weeks later – 6.3 magnitude event

## Legend





# All Four Events Combined





# If Turkiye earthquake happens at Southern CA

Turkiye Earthquake contour plot directly copied along San Andreas fault near Los Angeles.

Within the red contour (highly affected area):

- **230 out of 414** General Acute Care Facilities
- **620 out of 1132** Skilled Nursing Facilities

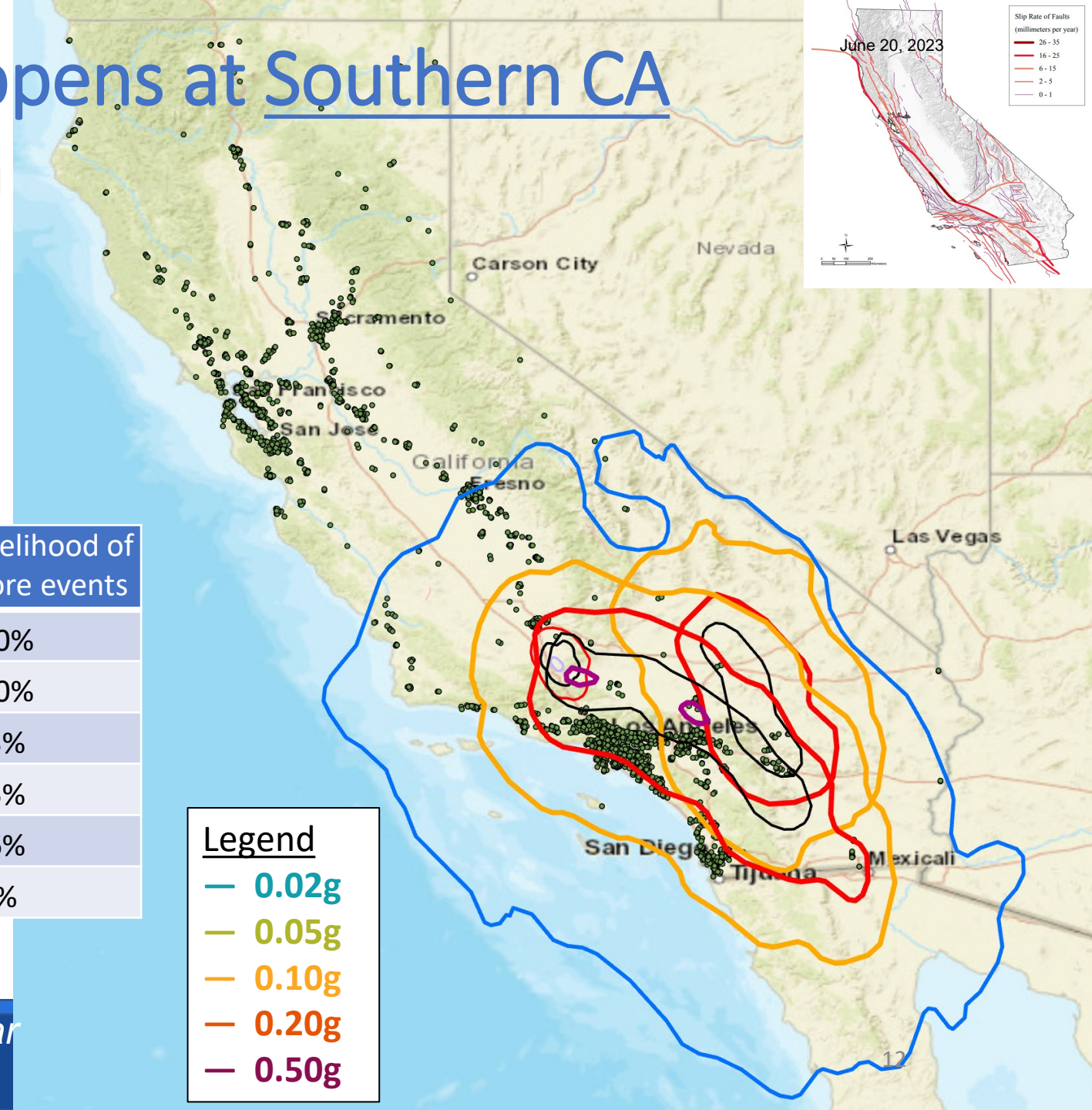
## Southern California Region

Magnitude (greater than or equal to)	Average repeat time (years)	30-year likelihood of one or more events
5	0.24	100%
6	2.3	100%
6.7	12	93%
7	25	75%
7.5	87	36%
8	522	7%

Table Reference: USGS, Fact Sheet 2015–3009, March 2015

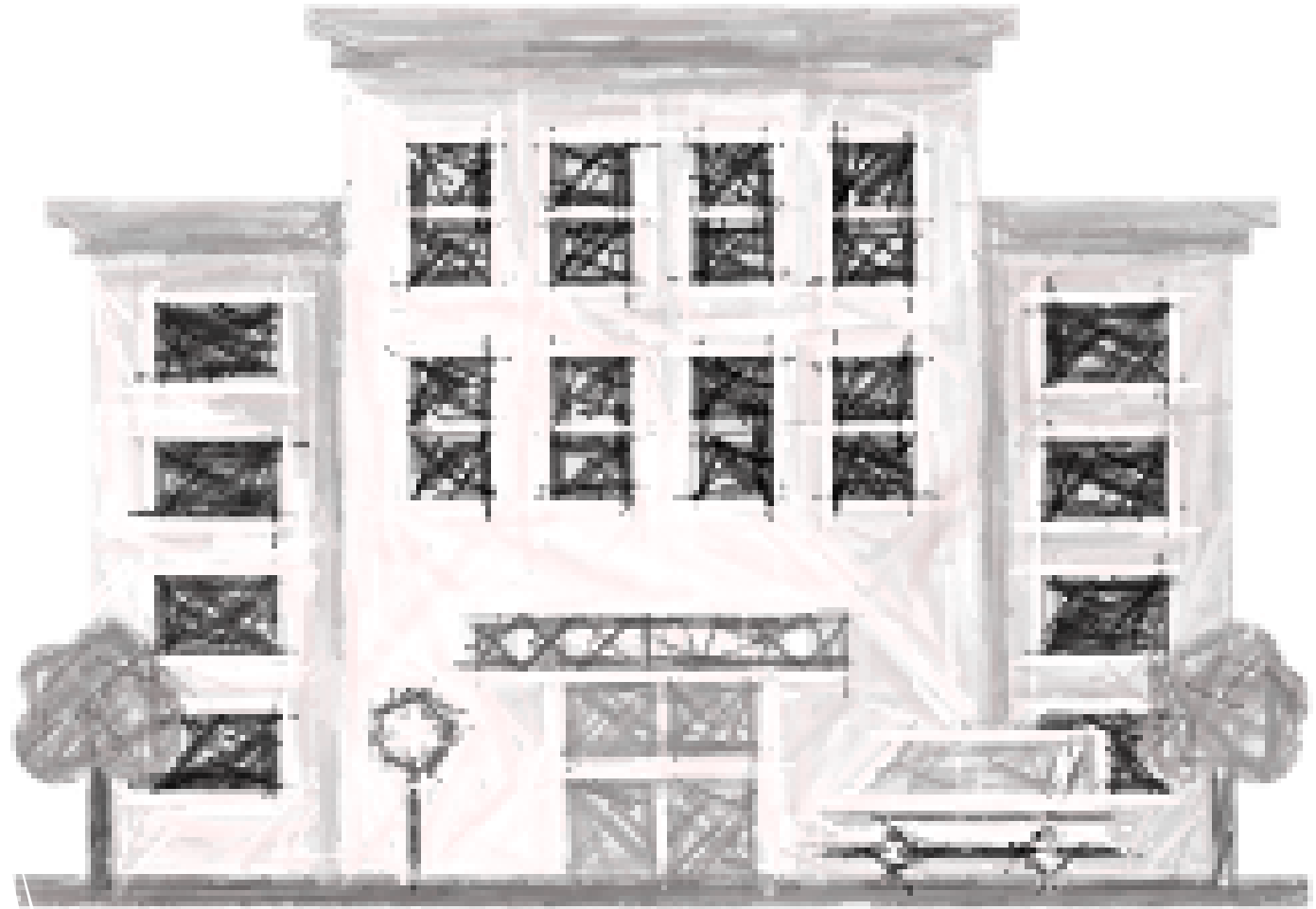
[Northern CA has similar no. of facilities, with similar probabilities of risk]

NPC 3.4.4D and 5 Requirements  
PIN 75 (AB 1882) Hospital Public Notices





# Definitions



**The Hospital Facilities Seismic Safety Act (HFSSA) § 129680** requires that hospitals “shall be designed and constructed to resist, insofar as practical, the forces generated by earthquakes, gravity, and winds.”

HFSSA § 130005 (f) states, “The office, in consultation with the Hospital Building Safety Board (HBSB), shall develop regulations to identify the most critical nonstructural systems and to prioritize timeframes for upgrading those systems that represent the greatest risk of failure during an earthquake.”

# Hospital Functionality

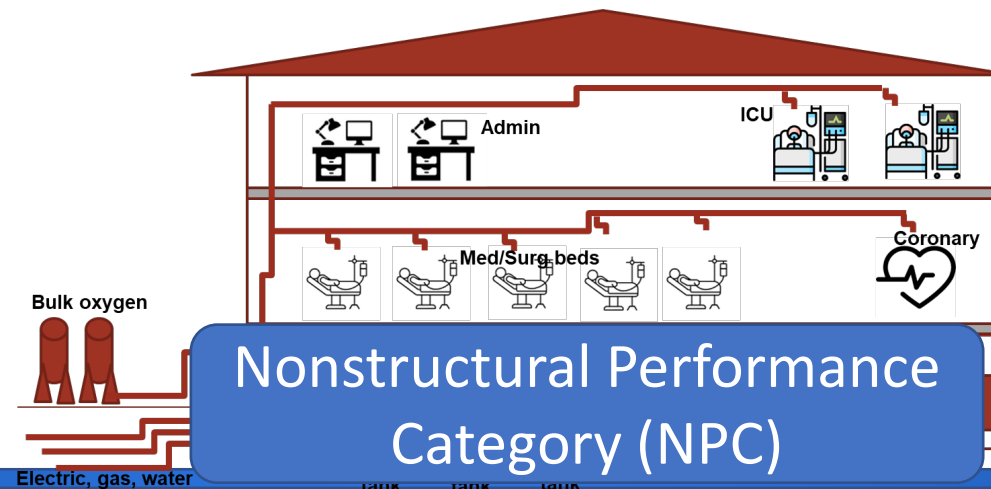
## STRUCTURAL

Beams, Columns, Shear Walls, Slabs, Foundations



## NONSTRUCTURAL

Cladding, Partitions, Ceilings, Equipment, Pipes, Furnishings, Contents, Elevators, Stairs, etc



## STAFF





# Nonstructural Performance Categories

HCAI Webinar

June 20, 2023



Photos: EERI Hospital Team  
NPG 3.1-4D and 5 Requirements  
ENR 75 (A8-1882) Hospital Public Notices



Rating	Brief / Simplified Description (See 2022 CAC Chapter 6 Table 11.1 for full description and requirements)	June 20, 2023
NPC - 1	Buildings with equipment and systems <b>not meeting the bracing and anchorage</b> requirements of any other NPC.	
NPC - 2	Buildings in which essential systems vital to the safe evacuation of the building are anchored and braced to minimum code requirements. Essential systems vital to the save evacuation of the building include <b>communications, emergency power supply, bulk medical gas, fire alarms and emergency lighting equipment and signs in means of egress.</b>	
NPC - 3	The building meets the criteria for NPC "2" and in <b>critical care areas, clinical laboratory service spaces, pharmaceutical service spaces, radiological service spaces, and central and sterile supply areas</b> , and certain components meet the bracing and anchorage requirements of Part 2, Title 24	
NPC – 4D	Building meets the criteria for <b>NPC - "3" + Operational Plan</b> . There are 3 levels.	
NPC - 4	Building meets the criteria for NPC - "3" and <b>all</b> architectural, mechanical, electrical systems, components and equipment, and hospital equipment meet the bracing and anchorage requirements of Part 2, Title 24.	
NPC - 5	Building meets the criteria for NPC - "4" or 4D and has onsite supplies of <b>water</b> and holding tanks for <b>sewage</b> and liquid waste sufficient for 72 hours of emergency operations, and provides radiological service and onsite fuel supply for 72 hours of acute care service.	

(See 2022 CAC Chapter 6 Table 11.1 for details)

# Nonstructural Perf. Cat. Building Simplified Example

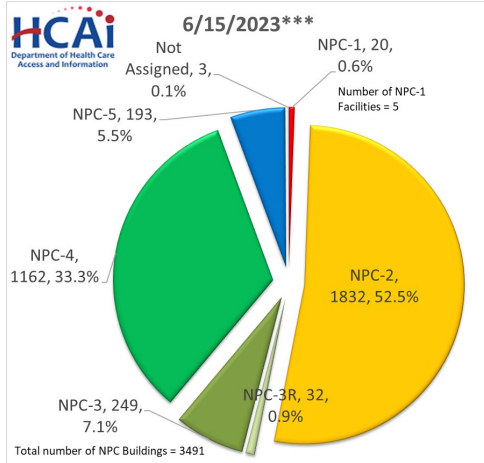
June 20, 2023



**NPC 4**

**NPC 3, NPC 4D** Level 1

Level 1



**Bulk oxygen**

**NPC 2**

**Electric, gas, water**

**Med/Surg beds**

**Radiology**

**Fire Alarm panel**

**NPC 2**

**NPC 5**



**Water tank**

**Fuel tank**

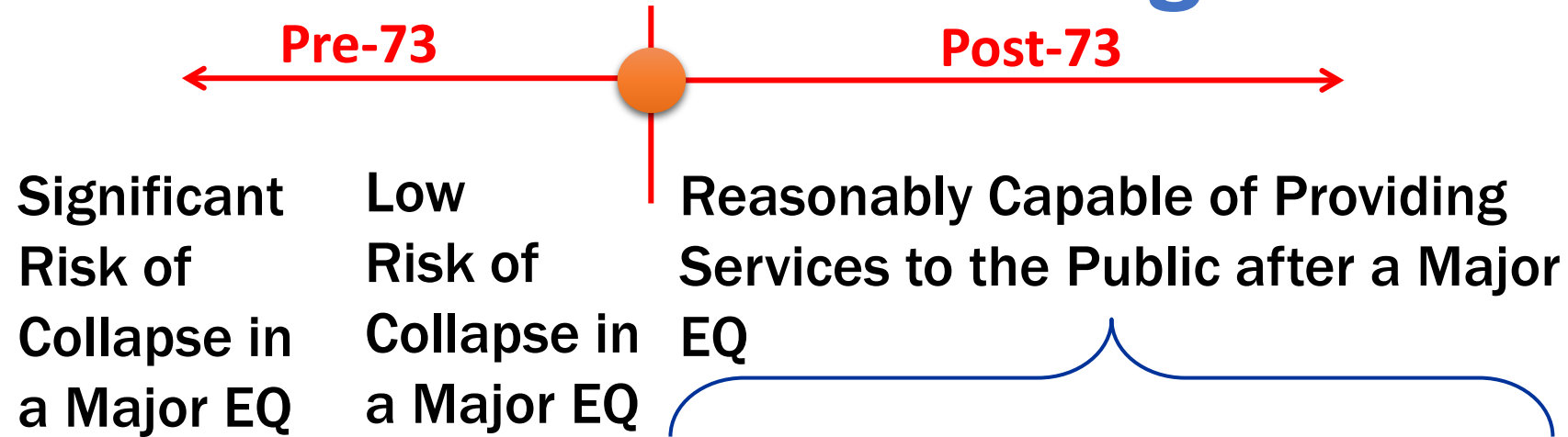
**Sewer tank**

**Emergency Generator**

**Chiller**

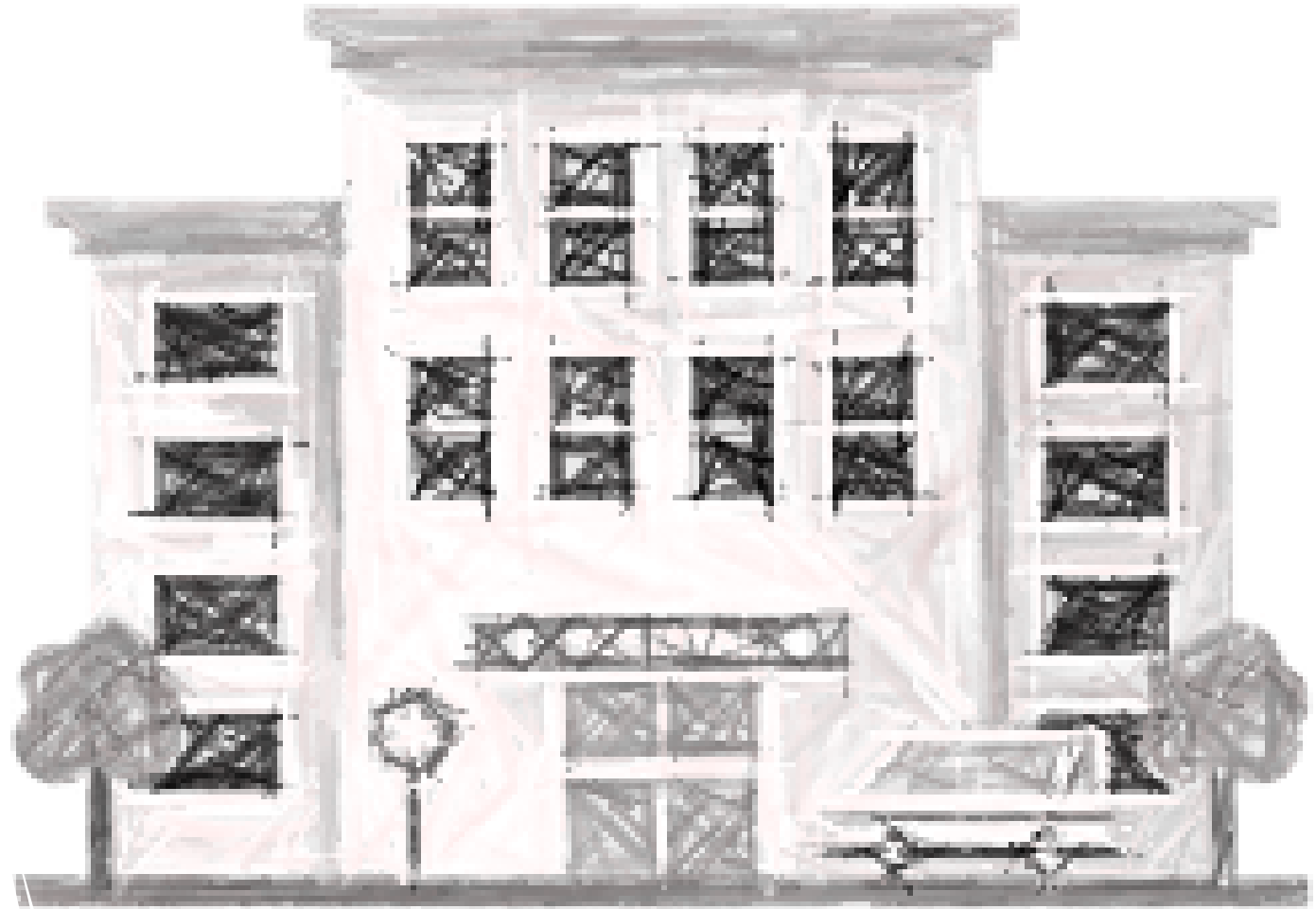
*Descriptions here are simplified/reduced, please see 2022 CAC Chapter 6 Table 11.1 for further details*

# Structural Performance Categories



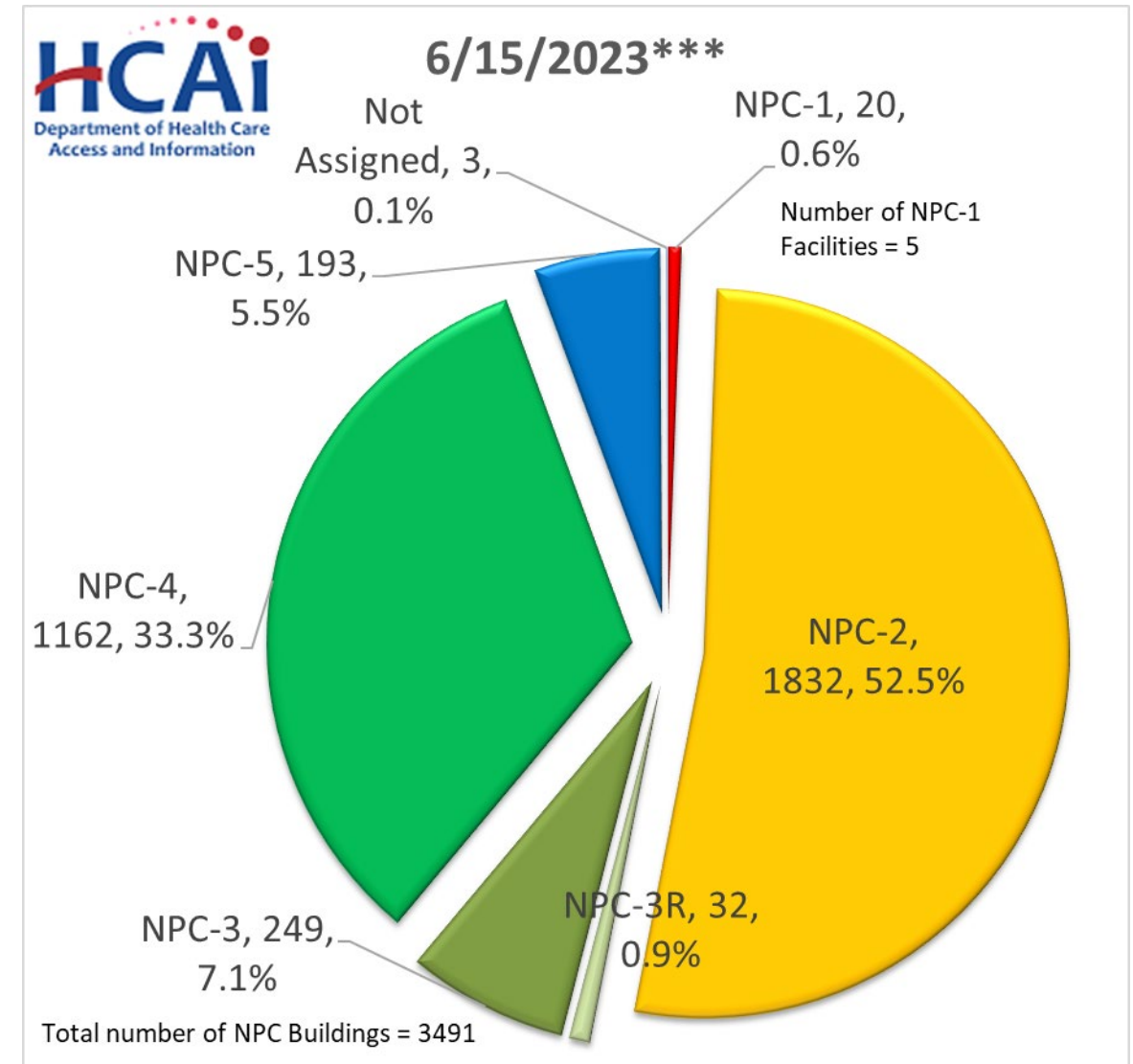
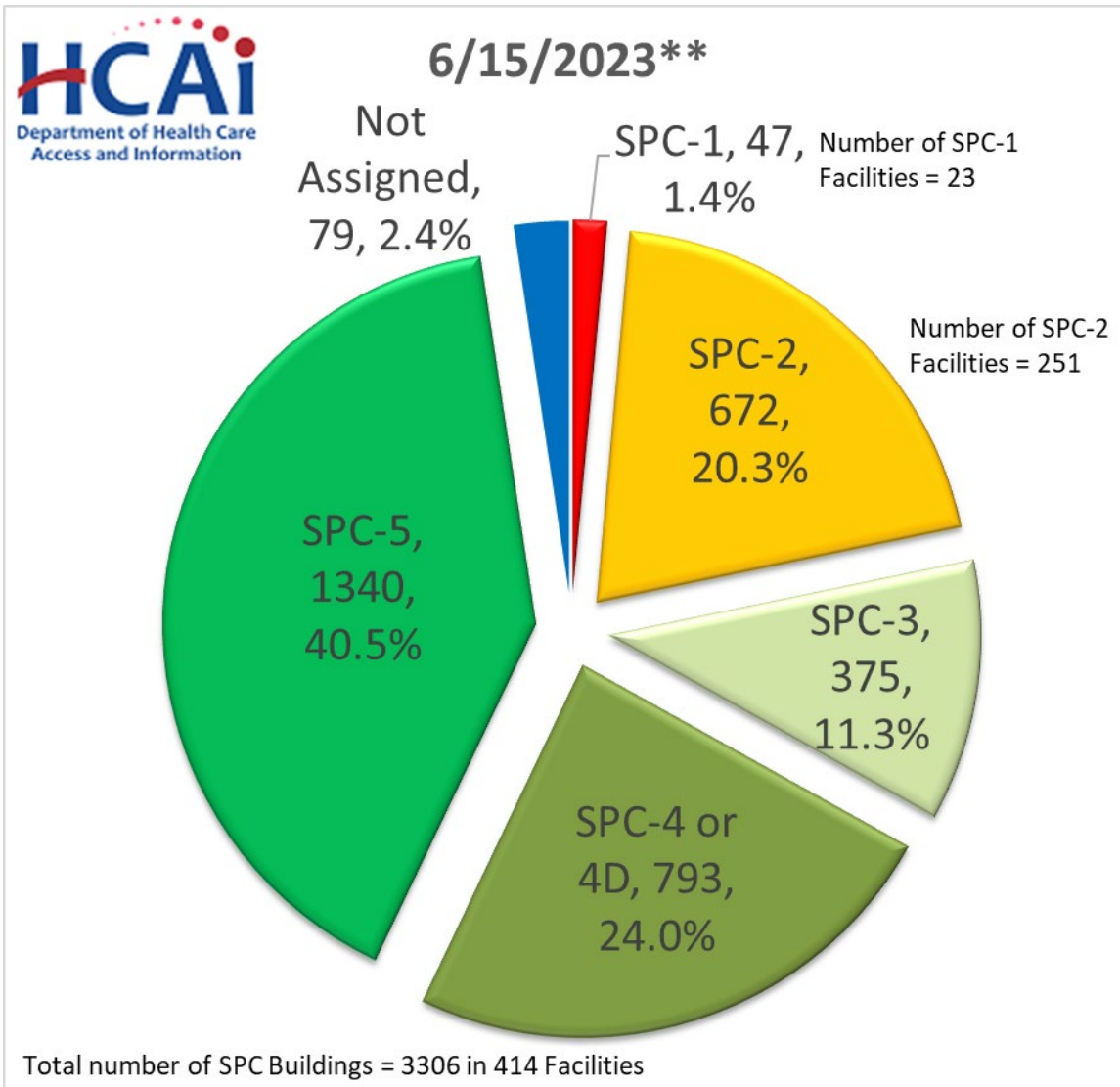
2008/2013/ 2015/2020/ 2022/2025	2030	2030+	2030+	2030+
<b>SPC1</b>	<b>SPC2</b>	<b>SPC3</b>	<b>SPC4</b>	<b>SPC5</b>
			<b>SPC4D</b>	

# Hospital Building Inventory





# SPC / NPC ratings of 3300 General Acute Care Buildings



# How to find NPC Status and more...

<https://hcai.ca.gov/construction-finance/facility-detail/>

Facility Info | Building List/Seismic Info | Instrumented Buildings | AB2190 Report | Unauthorized Construction

Show facilities:

- ☒ (All)
- ☐ Do not have AB 2190 Extensions
- ☐ Have AB 2190 Extensions

Facility List Drop-down

10072 Kaiser Foundation Hospital - Walnut Creek

**10072 Kaiser Foundation Hospital - Walnut Creek**  
(OSHDP ID: 106070990)  
1425 S Main Street  
Walnut Creek, CA-94596  
County:  
Contra Costa  
License Type:  
General Acute Care  
HCAI Geographic Region:  
Central Region

# Building SPC / NPC

For accessible copies of facility site plans [email Seismic Compliance Unit](#).

Facility Info	Building List/Seismic Info	Instrumented Buildings	AB2190 Report	Unauthorized Construction
---------------	----------------------------	------------------------	---------------	---------------------------

[Back to Main](#)

## 10072 Kaiser Foundation Hospital - Walnut Creek

Bldg Num	Bldg Name	Classification & Status	RACs Date	CO/CF Received	NPC Extension Date	Building Code	Year Built	Stories	Height in Feet	Hazus Score	Instrumented	Construction Type	Sprinklered	
<a href="#">BLD-02447</a>	Central Plant	OSHDP 1, In Service			1/1/2030	1979 California Building Code (CBC)	1985	1	Unknown		No			SPC: 4 NPC: 2
<a href="#">BLD-02448</a>	North Addition (Hospital Tower)	OSHDP 1, In Service			1/1/2030	1979 California Building Code (CBC)	1985	3	Unknown		No			SPC: 3 NPC: 2

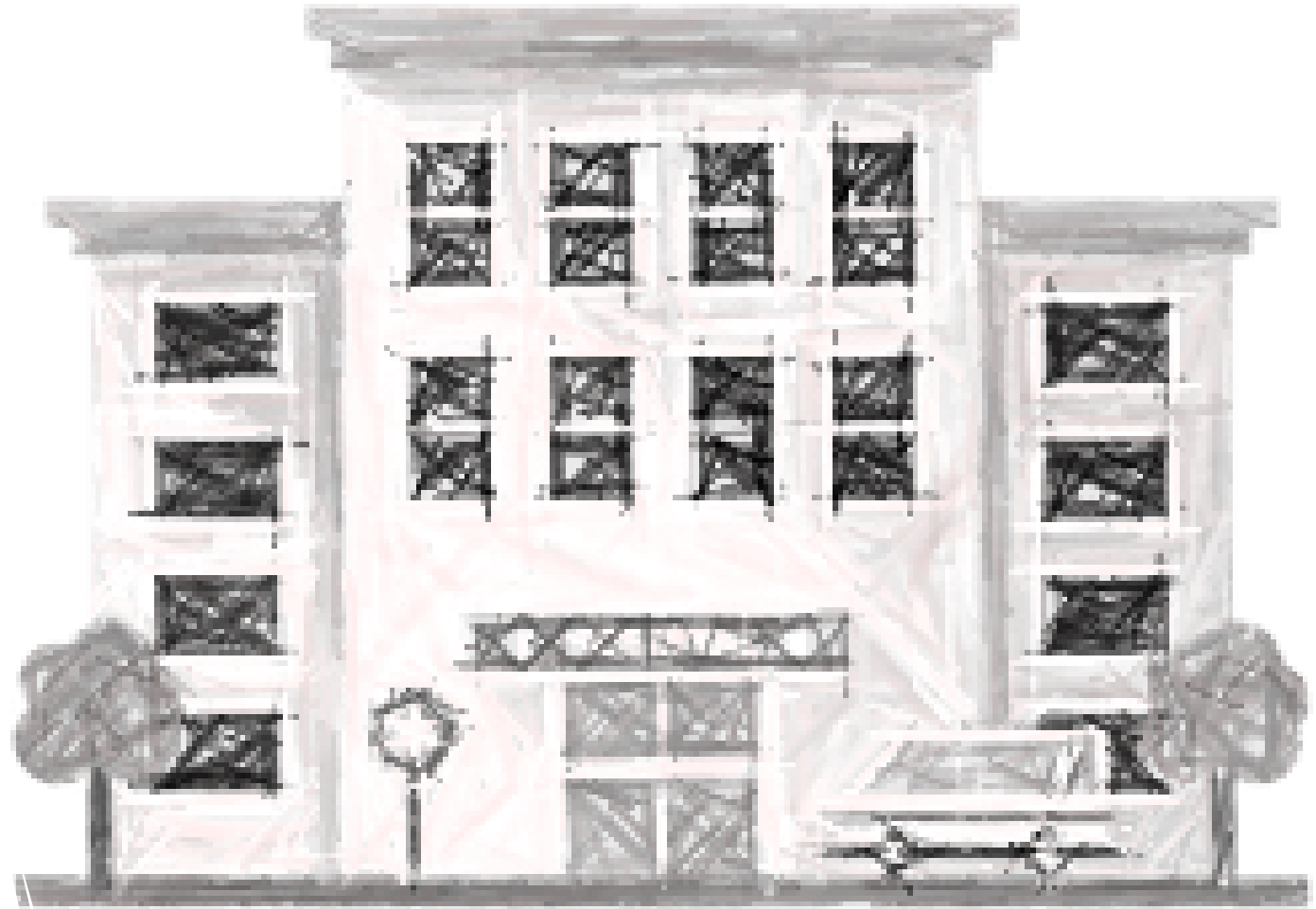
# Pre OSA, OSA\*, OSHPD buildings

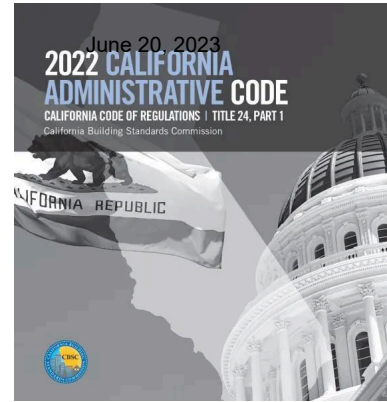
- Before 1973                      Constructed under local jurisdiction, pre-OSA buildings  
[Non-conforming building]
- 1973 – ~1982                      OSA permitted buildings (Hxxxx permit)
- ~1982 – 1996                      OSHPD permitted (Fire sprinkler limited evaluation required)  
(April 30, 1996 project submittal date)
- 1996 – Today                      OSHPD permitted (SPC 5, NPC 4/5)

\* Reviewed and approved by the Department of General Services, Office of Architecture and Construction, Structural Safety Section.

*See 2022 California Administrative Code Chapter 6 Section 11.2*

# NPC Deadlines

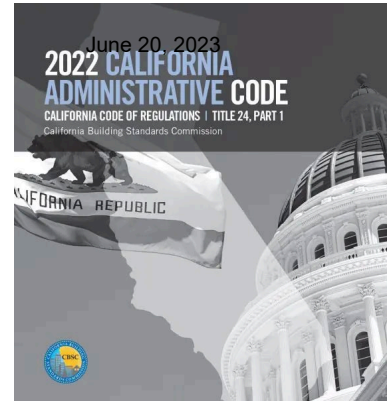




# NPC Compliance Timeframe

- For any general acute care hospital be use as a GAC hospital building after January 1, 2030:
  - **By January 1, 2024**, submit to the Office a complete nonstructural evaluation for each building up to NPC-4 / NPC-4D and NPC 5.
  - **By January 1, 2026**, submit to the Office construction documents ready for review by the Office.





# NPC Compliance Timeframe

- For any general acute care hospital be use as a GAC hospital building after January 1, 2030:
  - **By January 1, 2028, obtain a building permit to begin construction.**  
Hospitals not meeting this deadline shall not be issued a building permit except for:
    - Seismic compliance
    - Maintenance
    - Emergency repairsSee exceptions in 2022 CAC Chapter 6 Section 1.5.2.
  - **By January 1, 2030, the GAC building shall achieve NPC-5 rating**

# NPC 3 Compliance Deadlines

Seismic Design Category D – January 1, 2030 (high seismic area)

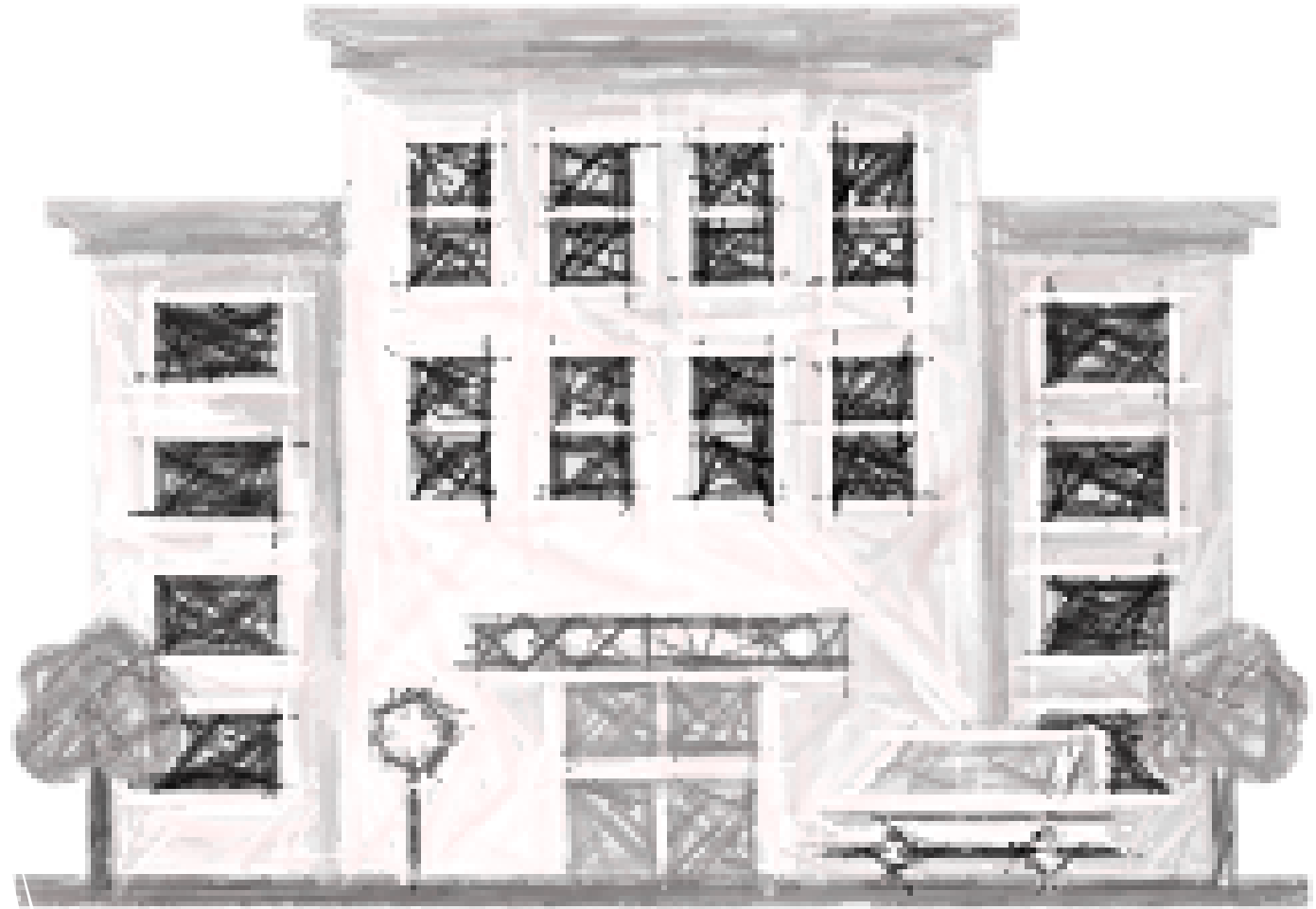
Seismic Design Category F – January 1, 2024 (very high seismic area)

Out of 1832 NPC 2 buildings, there are 56 NPC 2 buildings with Seismic Design Category F deadline (as of 6/20/2023)

*(See 2022 CAC Chapter 6 Table 11.1)*



What about buildings  
that will no longer  
provide acute care  
services beyond  
2030?

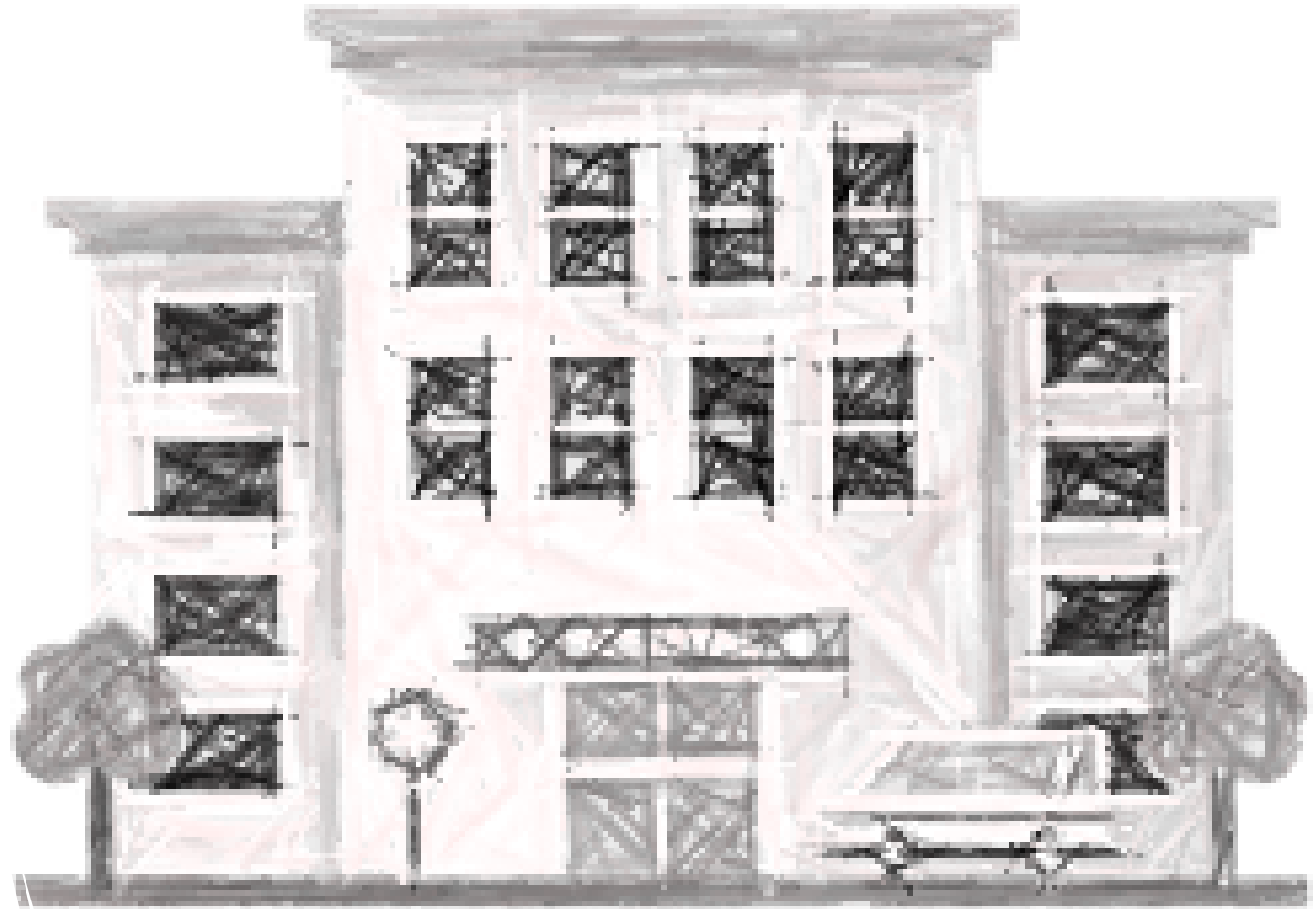


# Removing GAC Post-2030

## **NPC permitted to remain at NPC-2 if:**

- By **January 1, 2024**, the hospital owner shall submit to the Office an updated [seismic compliance plan](#) for each building to be removed from acute care service beyond January 1, 2030
- By **January 1, 2028**, the hospital owner shall submit to the Office a [RACS project](#) which includes [construction documents](#) deemed ready for review by the Office for remaining work required to meet conditions indicated in Part 10, Chapter 3A for Removal of Acute Care Services.

# NPC 3R & NPC 3



# What is NPC 3R?

- NPC 3R is a lower category than NPC 3

NPC-3R		
Demand	Capacity	Load Path
Shall comply with the provisions of Section 1630A of the 1995 California Buildings Code using an importance factor $I_p=1.0$ .	The capacity of welds, anchors and fasteners shall be determined in accordance with requirements of the 2001 California Building Code.	Limited Load path adequacy check

- 2022 CAC Chapter 6 Section 11.2.3 : ... *Installation or retrofit of components that were designed to meet NPC 3R requirements must be shown to meet the anchorage and bracing requirements of the California Building Code for NPC 3.*
- Currently there are 32 buildings with NPC 3R category

# What is NPC 3?

The building meets the criteria for NPC “2” and bracing/ anchorage in :

- Critical care areas (defined in Chapter 6 Section 1.2)

**2022 California Administrative Code (CAC), Chapter 6, Article 1, Section 1.2 – CRITICAL CARE AREA** means those special care units, intensive care units, coronary care units, angiography laboratories, cardiac catheterization laboratories, delivery rooms, emergency rooms, operating rooms, postoperative recovery rooms and similar areas in which patients are intended to be subjected to invasive procedures and connected to line-operated, electromedical devices.

- Clinical laboratory service spaces
- Pharmaceutical service spaces
- Radiological service spaces
- Central and sterile supply areas

*(See 2022 CAC Chapter 6 Table 11.1 for components and equipment list, and related exceptions and further requirements)*

# NPC 3: Bracing Boundaries of Critical Care Areas

**Question:** In the case of a Surgical Services Department, for example, CBC 1224 calls for certain code required spaces such as staff locker rooms, nurse control office, etc. Because these rooms are required by code for a Surgical Services Department to function, must they also be considered Critical Care Areas? Or, do we take a strict definition of Critical Care Areas to include only spaces for patients?

**Answer:** The whole Surgical Services department would be the boundary of the NPC 3 critical care area.

# What is NPC 3?

Nonstructural components,” listed in the 1995 CBC, Part 2, Title 24, Table 16A-0.

## Exceptions:

1. Lateral bracing of suspended **ceiling** systems may be omitted in rooms with a floor area less than **300 square feet**, provided the room is not an intensive care or coronary care unit patient room, angiography laboratory, cardiac catheterization laboratory, delivery room, operating room or post-operative recovery room. For rooms with a floor area greater than 300 square feet, OSHPD pre-approved standard details may be used.
2. Wall or floor-mounted **cabinets, shelves, shelving units, file cabinets, and/or storage racks and rolling carts**, unless these components are in a location where they could fall, collapse, or fail in the patient care vicinity as defined in Article 517.2 of the CEC, or could block a required means of egress.

*(See 2022 CAC Chapter 6 Table 11.1 for components and equipment list, and related exceptions and further requirements)*

# What is NPC 3?

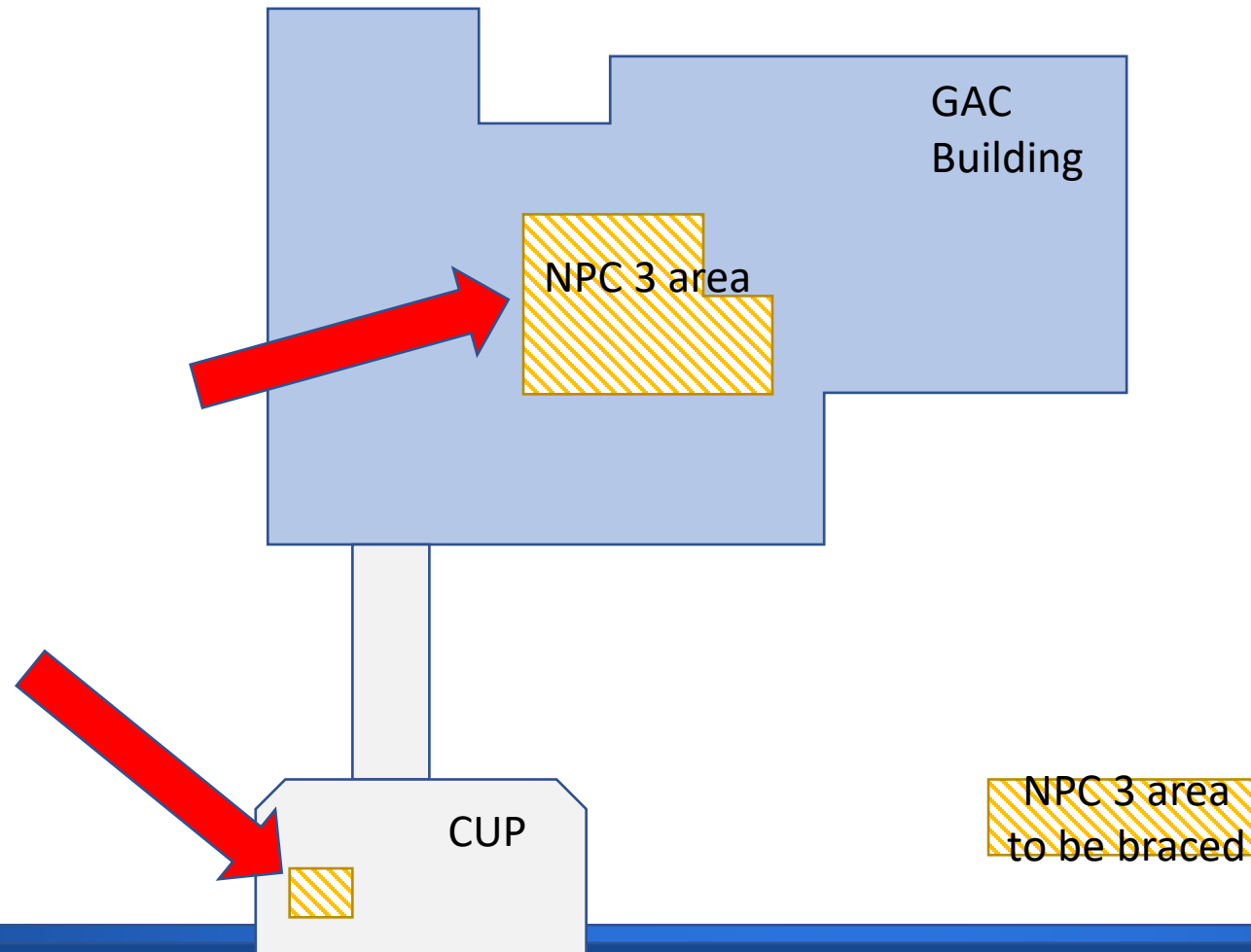
- Equipment as listed in the 1995 CBC Table 16A-0, including equipment in the physical plant that service these areas.

## Exceptions:

1. Seismic restraints need not be provided for cable trays, conduit and HVAC ducting. Seismic restraints may be omitted from piping systems, provided that an approved method of preventing release of the contents of the piping system in the event of a break is provided.
2. Elevator(s) need not comply with these requirements.
3. Tanks and vessels are connected to the building systems with flexible connectors capable of accommodating a minimum of 12 inches of movement in any direction and not be dislodged from supports.



# **NPC 3:** “including equipment in the physical plant that service these areas”



# What is NPC 3?

Fire sprinkler systems comply with the bracing and anchorage requirements of NFPA 13, 1994 edition, or subsequent applicable standards

*(See 2022 CAC Chapter 6 Table 11.1 for components and equipment list, and related exceptions and further requirements)*

# NPC 3: Fire Sprinkler Upgrade

**Question: One of our hospital buildings does not have fire sprinklers now. Will SPC or NPC upgrade require us to install a fire sprinkler system?**

- Sprinkler systems fall under the Nonstructural Performance Categories (NPC's). Compliance with SB1953 does not require that fire sprinkler systems be installed where none existed before. However, hospital buildings with existing fire sprinkler systems must meet the anchorage and bracing requirements of NPC 3 and NPC 4.

# NPC 3: Use of 1987, 1989, 1991 NFPA 13 to show compliance with fire sprinkler bracing

## *Scope of Work*

- ***1987, 1989, 1991 edition NFPA 13 Building Scope:***
  - ***Buildings where fire sprinklers are designed with 1991 edition NFPA 13: Design team required to add missing end-of- line restrains only.***
  - ***Buildings where fire sprinklers are designed with 1987 and 1989 edition NFPA 13: Design team to perform a visit site and verify original branch line bracing and end-of-line restrains exist. Design team required to add missing end of branch line restrains, missing longitudinal sway bracing for feed and cross mains, and missing lateral sway bracing for feed and cross mains.***
- ***1985 edition and earlier NFPA 13 Building Scope:***
  - ***Buildings where fire sprinklers are designed with 1985 and earlier NFPA 13: All fire sprinkler piping above ceiling shall be evaluated.***

# NPC 3: Use of 1987, 1989, 1991 NFPA 13 to show compliance with fire sprinkler bracing

## *Scope of Work*

- ***Existing Documentation***

- ***Photo Documentation:*** For projects constructed under the 1987, 1989, and 1991 edition NFPA 13 if the design team observes either end of line restrains and/or branch bracing, photo documentation will be sufficient to accept the as-built condition as part of an engineering report signed and stamped by the Structural Engineer of Record. However, the amount of photo documentation will need to be discussed, reviewed, and approved by HCAI SCU.

- ***Design Criteria***

- ***Anchorage Design:*** Where new restraints or bracing is placed, the anchorage design shall meet current California Building Code.
- ***Location of Bracing and End-of-Line Restraints:*** The number and location of bracing or end-of-line restraints will be identified per Scope of Work above.

# NPC 3: Reconciliation Report

- A review of the available drawings to determine the extent of the nonstructural bracing prior to conducting the site visit is very prudent.
- Aside from establishing the level of anchorage and bracing required to be expected, it will allow the evaluator to inventory components appearing on the drawings that should be braced.
- As a general rule, all major components that require bracing should be shown on the drawings.

**BUILDING 7 FLOOR COMPONENT INVENTORY**  
**HOSPITAL, in XYZ CITY, CALIFORNIA**

**BUILDING 7 Component Inventory**

FLOOR	AREA NAME	ROOM #	CATEGORY	SYMBOL	COMPONENT/ EQUIPMENT	QUANTITY	UNITS	WEIGHT (LB)	DIMENSIONS			MOUNTING TYPE	OSHPD PROJECT #	DETAIL REFERENCE	DRAWING NUMBER	COMMENTS
									WIDTH (IN UON)	DEPTH (IN UON)	HEIGHT (IN UON)					
Ceiling and Below																
2	Procedure Room	7.1	MED	ME1	Wall Mounted Monitor	1	EA	35	12	8	10	WALL	IS071411	15	IS2.0.2	
2	Procedure Room	7.1	MED	ME2	X-Ray Viewing Box	1	EA	75	24	3	18	WALL	IS071411	17	IS3.7.1	
2	Procedure Room	7.1	MED	ME3	Scope Cabinet	1	EA	40	24	12	84	FLOOR	IS071411	12	IS2.0.2	
2	Procedure Room	7.1	MED	ME4	Med Gas Outlet	1	EA	35	36	2	24	WALL	IS071411	18	IS3.10.1	
2	Procedure Room	7.1	MED	ME5	Wheeled Medical Cart with Dual Monitors and keyboard arm - medium	1	EA	300	48	18	60	FLOOR	IS071411	17	IS2.0.2	
2	Procedure Room	7.2	MED	ME6	Wheeled Cart Medium	1	EA	300	48	18	60	FLOOR	IS071411	17	IS2.0.2	
2	Procedure Room	7.1	CAB	ACB1	Metal Cabinet	1	EA	20	48	24	84	WALL	IS071411	12	IS2.0.2	
2	Procedure Room	7.1	CAB	ACB2	Double Wood Cabinet	1	EA	50	72	24	90	WALL	IS071411	2	IS2.0.2	
2	Procedure Room	7.1	DESK	ACB3	Desk	1	EA	20	60	24	34	FLOOR	IS071411	8	IS2.0.2	
2	Procedure Room	7.1	CAB	ACB4	Bookshelf	1	EA	20	66	12	48	FLOOR	IS071411	12	IS2.0.2	
2	Procedure Room	7.1	SINK	ACB5	Sink	1	EA	20	48	24	38	FLOOR	SS031155	7	A-4	
2	Procedure Room	7.1	CLG	-	Ceiling	400	SF	-	-	-	-	SUSPENDED	SS031155	5	A-4	



# NPC 3: Reconciliation Report Example

- See reconciliation report example on HCAI's website:  
<https://hcai.ca.gov/document/npc-2-reconciliation-report/>

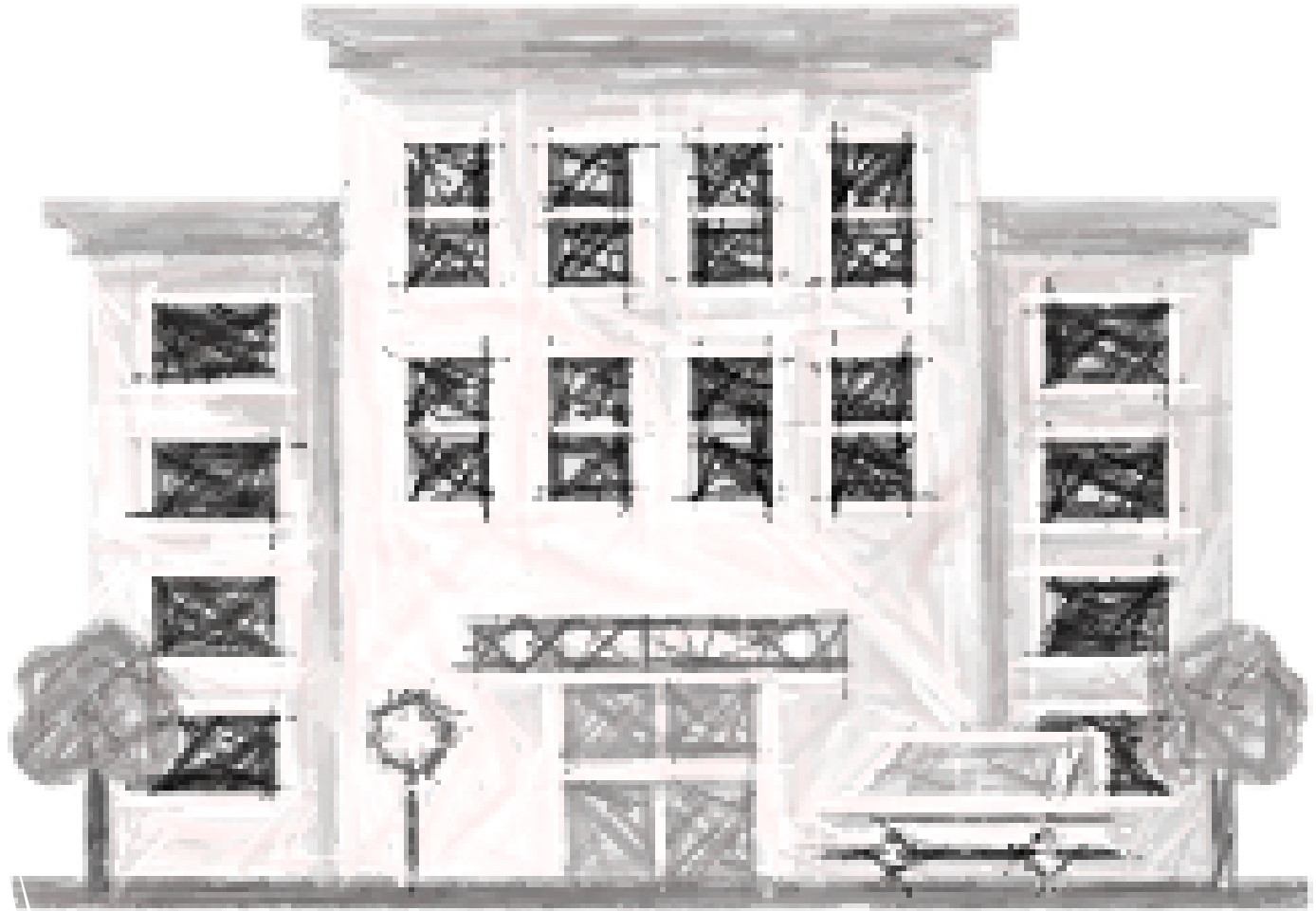
# NPC 3: Past OSHPD Projects

- OSHPD projects required to be closed in compliance.
- Mark scope areas on floor plan
- Complete floor-to-floor replacement projects only need to mark scope areas, no need to itemize equipment in the area.

# NPC 3: Exempt Equipment

- It is important to note that the NPC 3 evaluation is limited to those systems and components listed in the 1995 CBC, Part 2, Title 24, Table 16A-O. (See HCAI website SCU FAQs to download a copy of this Table)
- It is acceptable to use PIN 68 to determine if an equipment is exempt or not.
- There is no need to list “very obvious” exempt equipment in the reconciliation report
- If there is a large/heavy “exempt” equipment that may become a discussion later in the construction phase, it is recommended to include the item in the construction documents and label it as “exempt”.

# NPC 4D

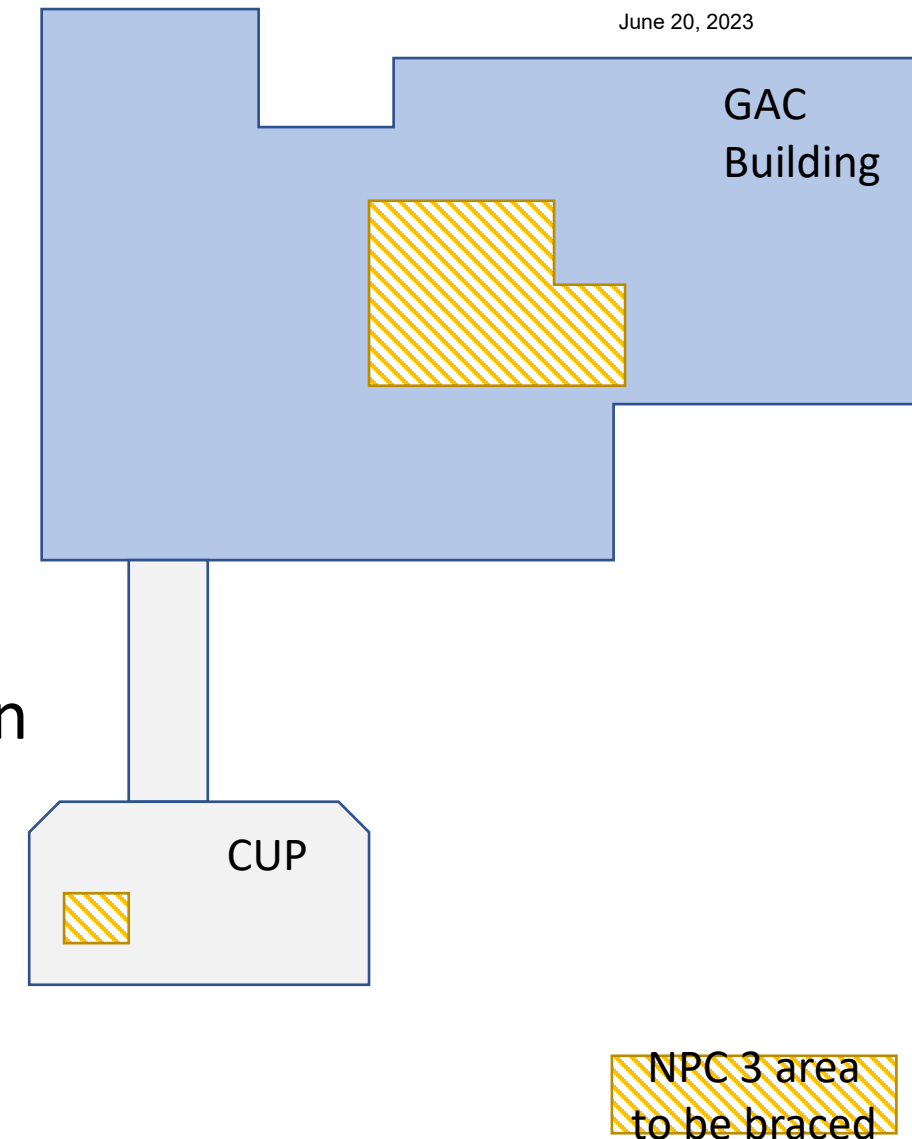


# NPC 4D

- See 2022 California Administrative Code Chapter 6, Section 11.2.3
- The building meets the criteria for NPC “3” and for systems listed in Levels 1 to 3, meets the bracing and anchorage requirements of Part 2, Title 24
- There are three levels:
  - NPC 4D Level 1
  - NPC 4D Level 2
  - NPC 4D Level 3
- For Level 1, 2 or 3 : Operational Plan is required

# NPC 4D – Level 1

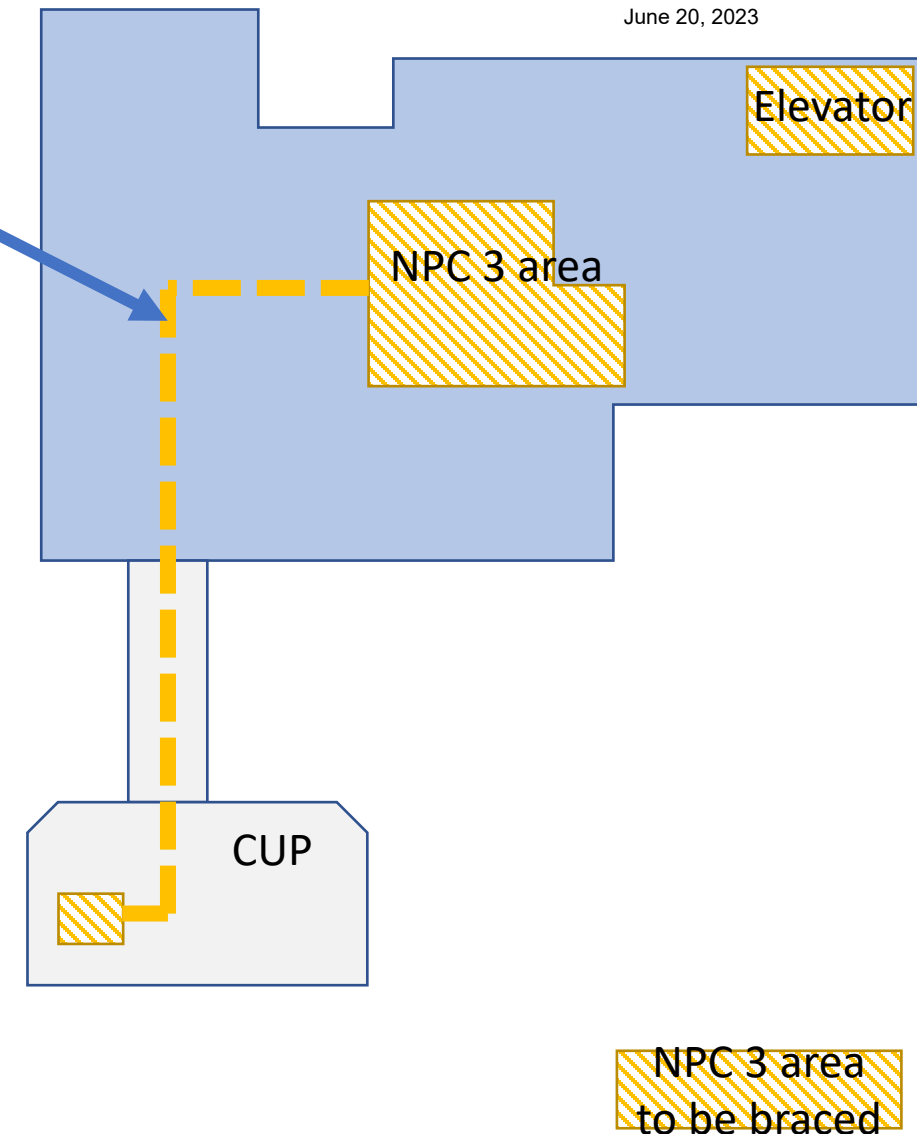
- Level 1 is the minimum requirement.  
*(Level 2 and 3 are optional)*
- Level 1 is essentially NPC 3 + Operational Plan
- Equipment as listed in the 1995 CBC Table 16A-0, including equipment in the physical plant that service these areas.



# NPC 4D – Level 2

- Includes Level 1 and all services and utilities **from the source to Level 1 areas** necessary to accommodate continuation of operations after an event.
- Elevator(s) selected to provide service to patient, surgical, obstetrical, and ground floors during interruption of normal power needed, to meet the structural requirements of Part 2, Title 24.
- Operational Plan

Utility to be braced





# NPC 4D – Level 3

- Level 3 includes Level 2, and all systems and equipment are anchored and braced so that additional services, as determined by the hospital in its Operational Plan, are functional and available to the public after a seismic event.

# NPC 4D Operational Plan

**Question:** Does the NPC 4D evaluation have to include the operational plan? Can we submit it later?

**Answer:** Operational plan is critical part of NPC 4D evaluation, required by 2022 CAC Chapter 6 Section 11.2.3 item (f).

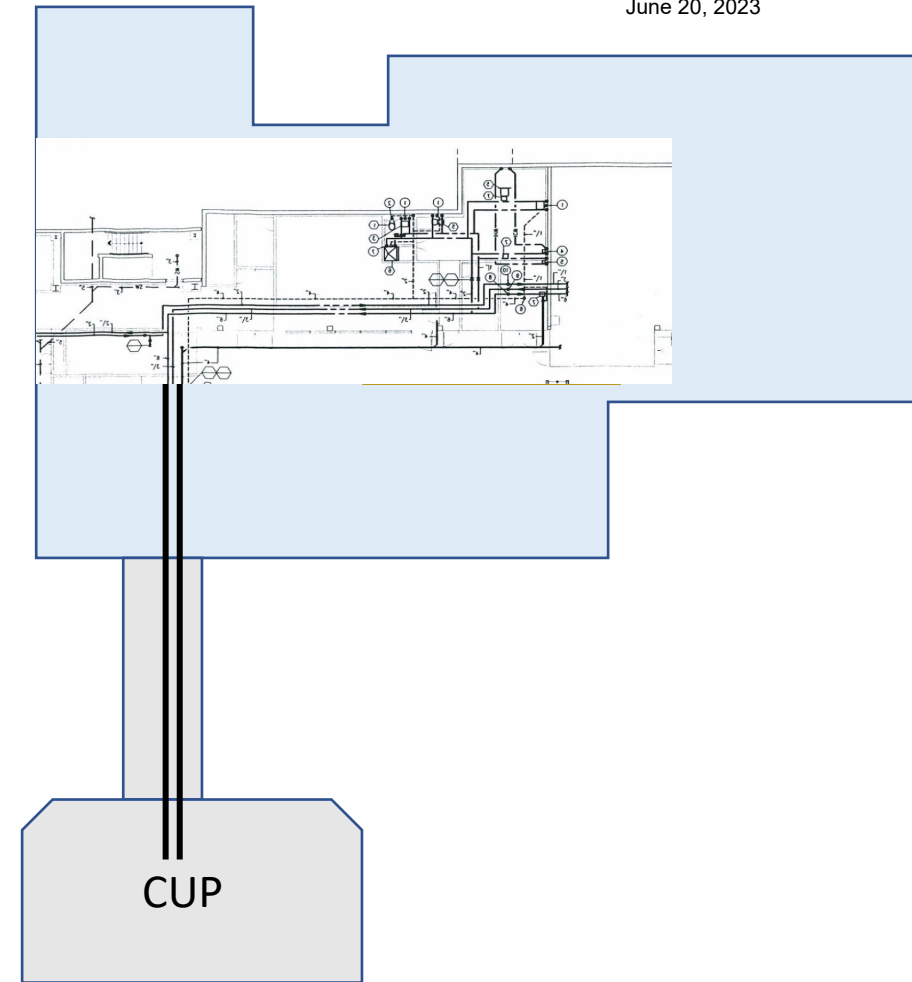
# NPC 4D Operational Plan

- The facility must prepare an **owner-approved** Operational Plan specifying how it will repair nonstructural damage and bring systems and services back online, or provide them in an **alternative manner** to accommodate continuation of critical care operations.
- This plan may include any other units or departments that hospitals may wish to keep operational for a minimum of 72 hours after a seismic event or other natural or human-made disaster.
- The Operational Plan shall be filed with the Office and shall include an executive summary, a detailed narrative of management of utilities, provisions, sustainability, and alternate means.
- Operational Plan document will be published on HCAI website

# NPC 4D Operational Plan

## Level 1 Areas:

- As-built/schematic showing the routing for all utilities serving the areas from their source to the areas they serve.
- Materials on hand to make necessary repairs
- Prioritize the restoration of the essential electrical system.
- Facility has a plan to maintain the areas in operation, including all necessary utilities and equipment for functionality.
- An arrangement is in place to transfer the services in the event the hospital's services are not operational or cannot be made operational immediately.



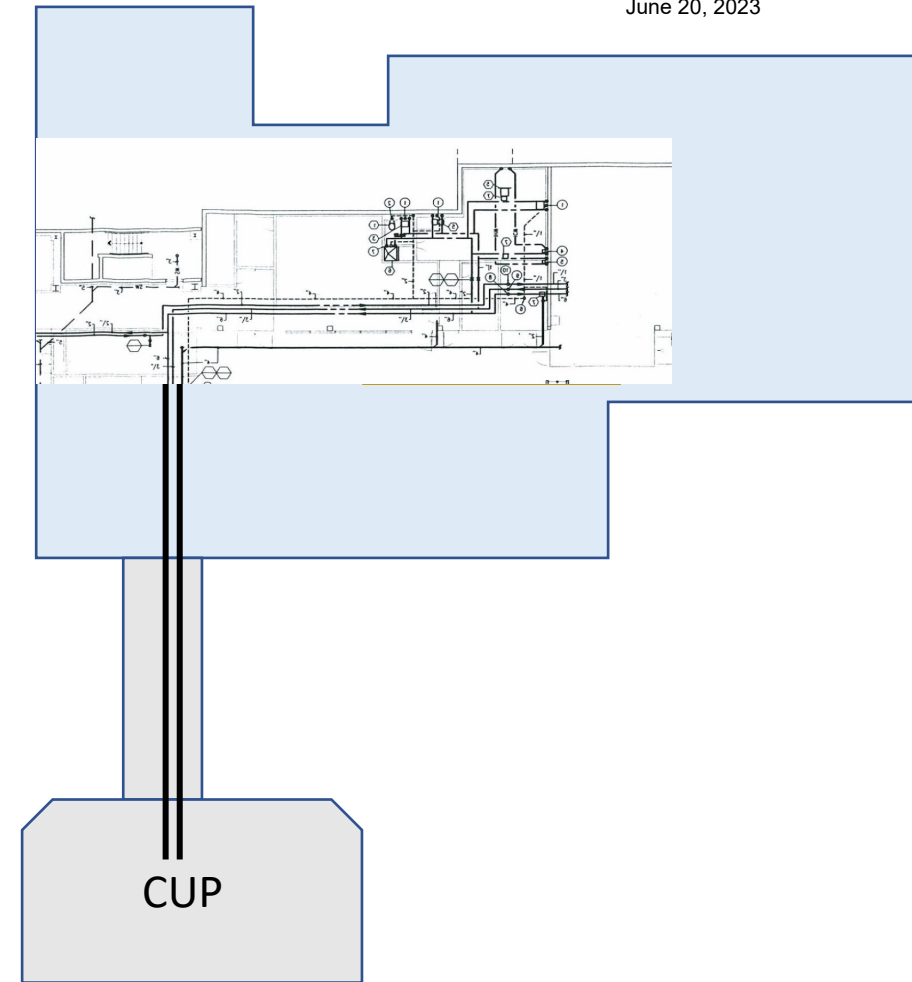
# NPC 4D Operational Plan

## Level 1 Areas:

- As-built/schematic showing the routing for all utilities serving the areas from their source to the areas they serve.

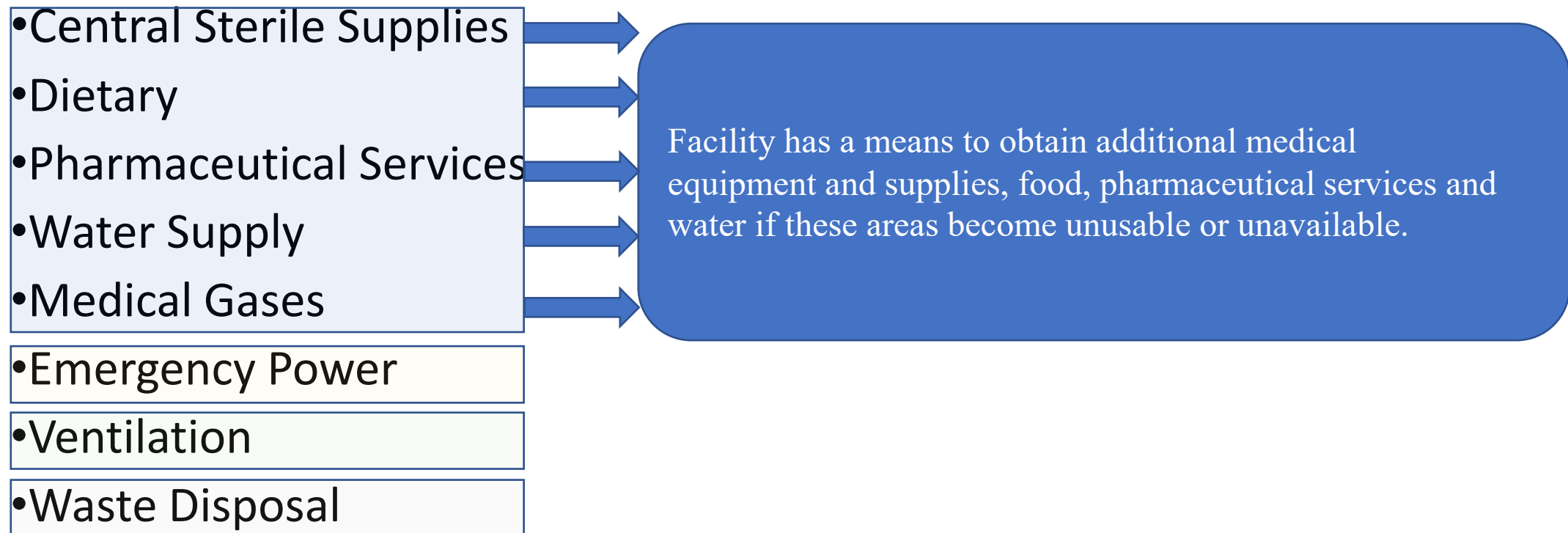
**Question:** Are small pipes/conduits/ducts that are code exempt from bracing need to be shown on the schematic utility plan?

**Answer:** Although it is desirable to have of all exempt and non-exempt utility line drawings on hand, it is often not feasible. Therefore it is acceptable to show only non-exempt distribution systems in the NPC 4D operational plan .



# NPC 4D Operational Plan

- The Operational Plan shall include, but is not limited to, the following topics for each unit or service that is not in compliance with NPC 4:



# NPC 4D Operational Plan

- The Operational Plan shall include, but is not limited to, the following topics for each unit or service that is not in compliance with NPC 4:

- Central Sterile Supplies
- Dietary
- Pharmaceutical Services
- Water Supply
- Medical Gases
- Emergency Power
- Ventilation
- Waste Disposal




- Reliable emergency power generating capacity for the areas is provided.
- Emergency power is adequate to provide for all essential services for 72 hours of continuous, full-load demand before replenishment is needed.
- Facility has a means for emergency fuel replenishment.
- Facility has a means of providing essential electrical power in the event of its generator(s) failure.
- Stat Lab and blood bank have been identified as essential services.



# NPC 4D Operational Plan

- The Operational Plan shall include, but is not limited to, the following topics for each unit or service that is not in compliance with NPC 4:

- Central Sterile Supplies
  - Dietary
  - Pharmaceutical Services
  - Water Supply
  - Medical Gases
  - Emergency Power
  - Ventilation
  - Waste Disposal
- 

- i. Facility can isolate and shut down Heating, Ventilation, and Air Conditioning (HVAC) system zones in an emergency.
- ii. Guidelines are in place for emergency shutdown.
- iii. Sections of the facility can be isolated.
- iv. Individuals are identified who have authority for ordering HVAC shutdown 24/7.
- v. Air intakes are protected from tampering.
- vi. Facilities and Engineering staff have knowledge of HVAC zones and shutdown procedures.
- vii. Facility maintains adequate emergency supplies of filters for HVAC systems.

# NPC 4D Operational Plan

- The Operational Plan shall include, but is not limited to, the following topics for each unit or service that is not in compliance with NPC 4:

- Central Sterile Supplies
- Dietary
- Pharmaceutical Services
- Water Supply
- Medical Gases

- Emergency Power

- Ventilation

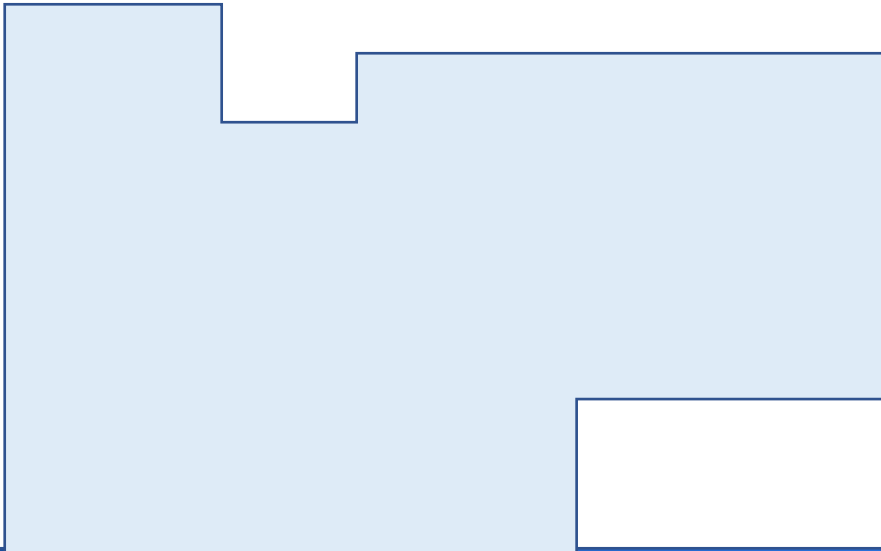
- Waste Disposal



Procedures for management and disposal of an increased volume of contaminated wastes, goods, and fluids for 72 hours are in place.

# Example 1 : NPC 4D Level 1- Operational Plan

- There is no Critical Care Area, no kitchen, no areas listed in NPC 3 in the building.
- This example building has admin spaces and med surg beds...



- ~~Level 1 Areas:~~

~~Drawings/schematic showing the routing for all utilities serving the areas from their source to the areas they serve.~~

~~Materials on hand to make necessary repairs~~

~~Prioritize the restoration of the essential electrical system.~~

~~Facility has a plan to maintain the areas in operation, including all necessary utilities and equipment for functionality.~~

~~An arrangement is in place to transfer the services in the event the hospital's services are not operational or cannot be made operational immediately.~~

- ~~Central Sterile Supplies~~

- ~~Dietary~~

- ~~Pharmaceutical Services~~

- Water Supply

- Medical Gases

- Emergency Power

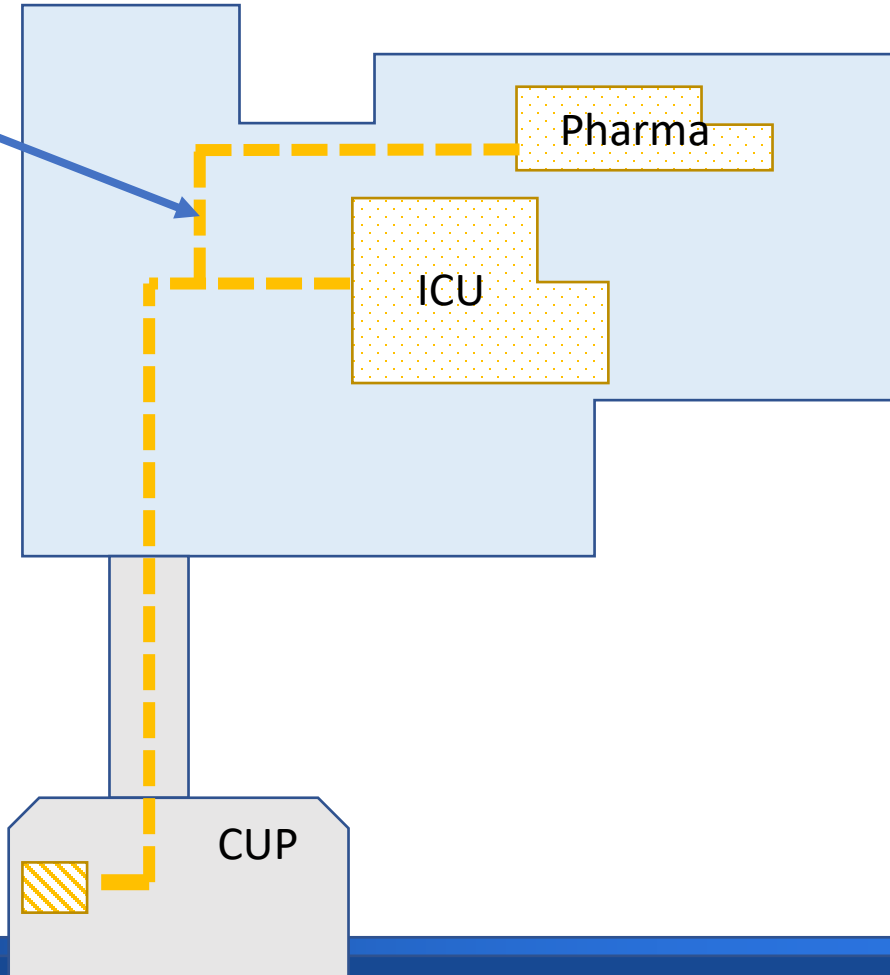
- Ventilation

- Waste Disposal

# Example 2 : NPC 4D Level 1- Operational Plan

- ICU, Pharmaceutical services, no kitchen, no central sterile supply

Utilities need not be braced, but as-built routing drawings are needed



- Level 1 Areas:

Drawings/schematic showing the routing for all utilities serving the areas from their source to the areas they serve.

Materials on hand to make necessary repairs

Prioritize the restoration of the essential electrical system.

Facility has a plan to maintain the areas in operation, including all necessary utilities and equipment for functionality.

An arrangement is in place to transfer the services in the event the hospital's services are not operational or cannot be made operational immediately.

- ~~Central Sterile Supplies~~
- ~~Dietary~~
- Pharmaceutical Services
- Water Supply
- Medical Gases
- Emergency Power
- Ventilation
- Waste Disposal



# NPC 4

- Brace/evaluate all architectural, equipment etc. per CAC Chapter 6 Table 11.1
- NPC 3 areas - exceptions don't apply.
- If project already has OSHPD project # (closed in compliance), no re-evaluation of the OSHPD project scope components required.
- **No operational plan required**

# NPC 4 – Is it really bracing everything? -> No

## 2022 California Administrative Code Table 11.1 Footnote 2

For the purposes of NPC 3 and **NPC 4** or NPC 4D in SPC 2, SPC 3, SPC 4 or SPC 4D, buildings, all enumerated items within Table 11.1 shall meet the requirements of the 1998 CBC, Section 1630B or equivalent provision in later version of the CBC, by the specified timeframe. The adequacy of anchorage and bracing may be limited to the connection of the component or equipment to the support when the total reaction at the point of support (including the application of  $F_p$ ) less than or equal to the following limits:

1. **250 pounds** for components or equipment attached to **light frame walls**. For the purposes of this requirement, the sum of the absolute value of all reactions due to component loads on a single stud shall not exceed 250 pounds.
2. 1,000 pounds for components or equipment attached to roofs, or walls of reinforced concrete or masonry construction.
3. 2,000 pounds for components or equipment attached to floors or slabs-on-grade.

**Exception:** If the anchorage or bracing is configured in a manner that results in significant torsion on a supporting structural element, the effects of the nonstructural reaction force on the structural element shall be considered in the anchorage design.

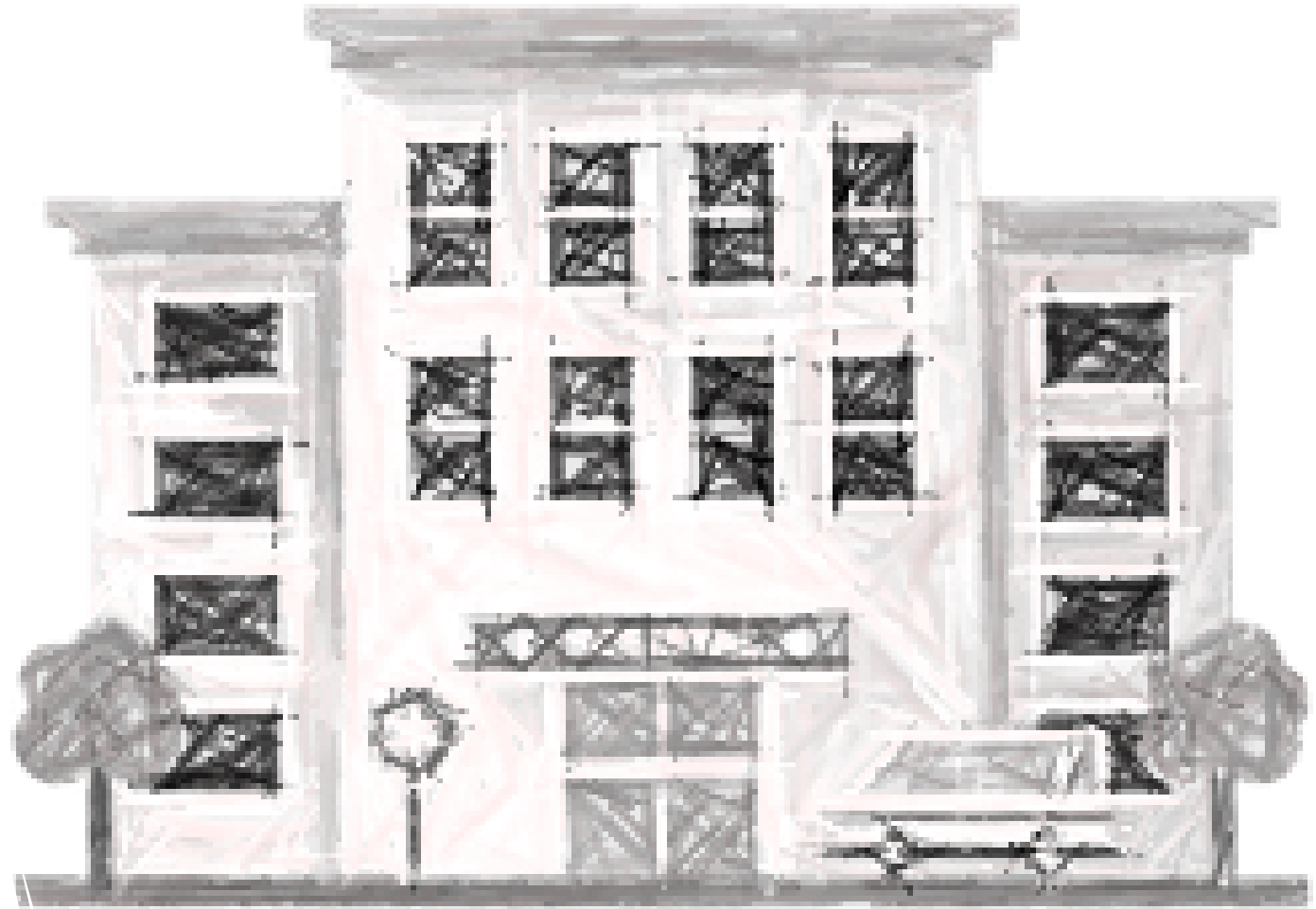
# NPC frequently asked questions:

<https://hcai.ca.gov/construction-finance/resources/seismic-faqs/#NPC>



# 5-minute break

# NPC 5



# NPC 5 Compliance by 2030

- **An NPC-5-compliant Hospital Facility is capable to support 72 hours of emergency operations during widespread damage caused by a Major EQ.**
- What does being reasonably capable of providing services to the public after a disaster mean?
  - Water storage/water conservation plan
  - Waste water storage
  - Fuel storage for emergency generator(s)
  - Utilities and systems anchored and braced





# Northridge EQ 1994



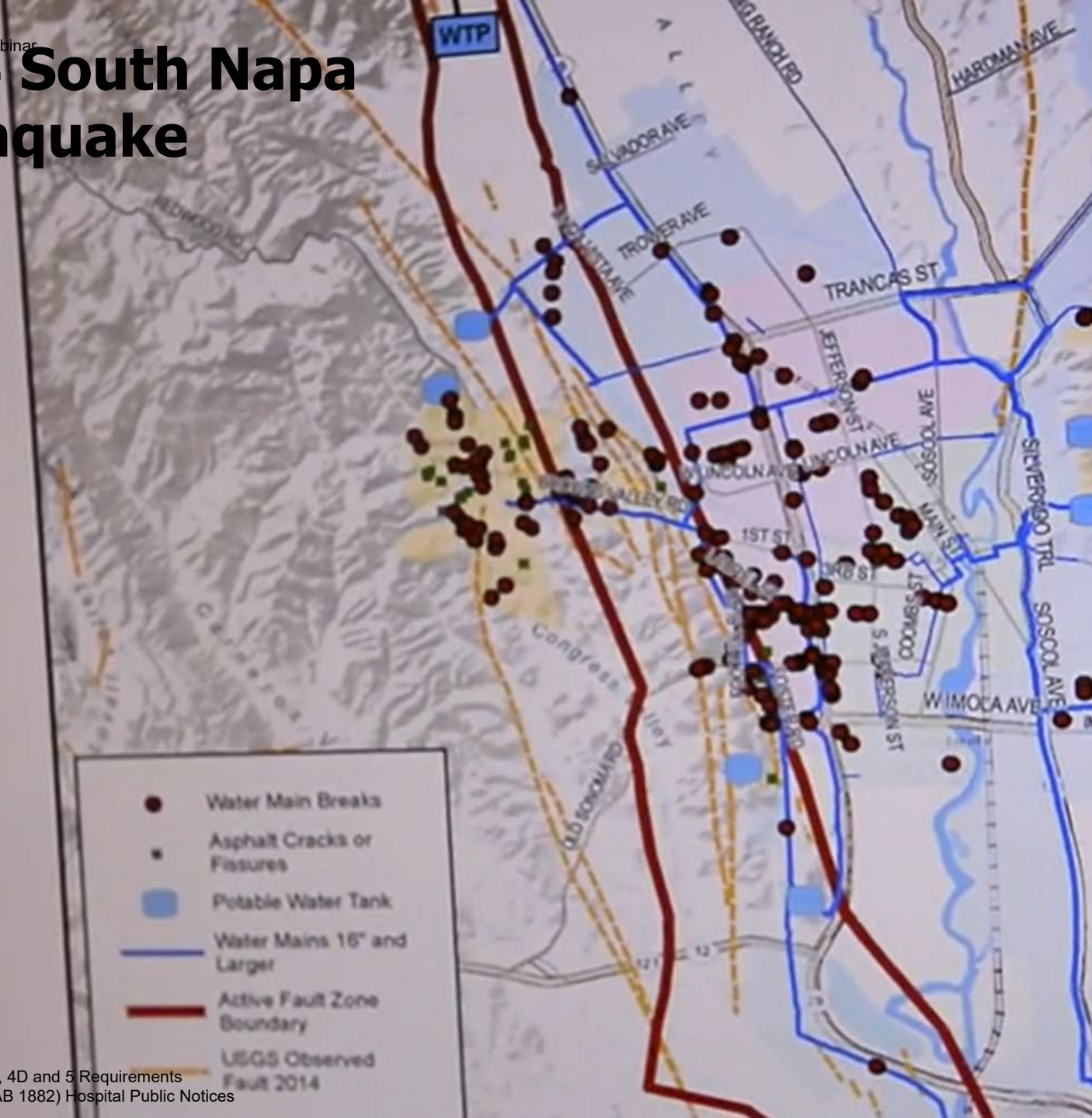
**Fire & Water: A ruptured supply line burned in the water on Balboa Boulevard in Granada Hills**



# 2014 South Napa Earthquake

HCAI Webinar

June 20, 2023



**120 water main breaks in the aftermath of 2014 S. Napa EQ.**

# Earthquakes Cause Extensive Damage to Critical Infrastructure

- Widespread damage to water and wastewater systems, resulting in loss of service for extended periods
- Extensive damage to other critical infrastructure, including transportation networks
- Hospitals are required to have enough emergency water to remain functional during lengthy outages caused by natural disasters



Courtesy of Portland Water Bureau



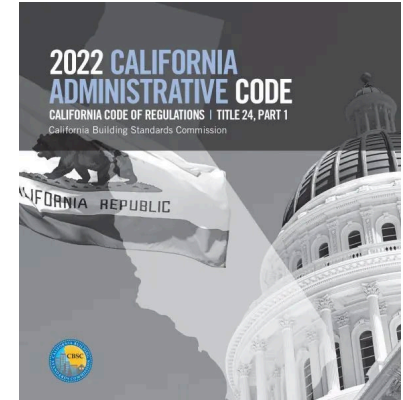
# Consequences of Loss of Water in Hospitals After an EQ

- Patient care (e.g., hemodialysis, hemofiltration, extracorporeal membrane oxygenation, hydrotherapy);
- Loss of access to water for use in disinfection, sterilization, and water-based patient treatments
- Loss of HVAC systems that rely on water for heating, cooling, and ventilation
- Laundry and other services provided by central services (e.g., cleaning and sterilization of surgical instruments)
- Loss of fire suppression capabilities
- Loss of drinking water and sanitation services
- Potential loss of access to other hospitals and healthcare facilities on the same affected water system
- Inability to provide an effective hazmat-decontamination response
- Potential lack of water for field medical triage centers during an emergency response
- Etc.



Courtesy of Yumei Wang

# NPC-5 Emergency Water Requirements

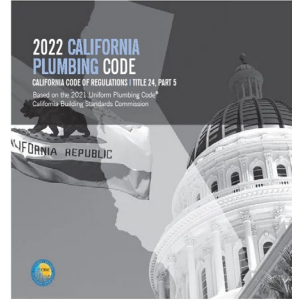


## CAC Part 1, Chapter 11, Table 11.1

- The building meets the criteria for NPC “4” or NPC “4D” and **onsite supplies of water and holding tanks for sewage and liquid waste, sufficient to support 72 hours emergency operations, are integrated into the building plumbing systems in accordance with the California Plumbing Code.** An onsite emergency system as defined in the California Electrical Code is incorporated into the building electrical system for critical care areas. Additionally, the system shall provide for radiological service and an onsite fuel supply for 72 hours of acute care operation.

# NPC-5 Post-Earthquake Emergency Water

- NPC-5 requirements include potable water as well as industrial/process water to operate hospital utilities and equipment **to support 72 hours of emergency operations**
- CPC, Section 615.4
  - “. . . For acute care hospital facilities or buildings required to meet NPC-5, on-site water supply of not less than 150 gallons [based on 50 gallons/day/bed for 72 hours] of potable water per licensed bed shall be provided.”

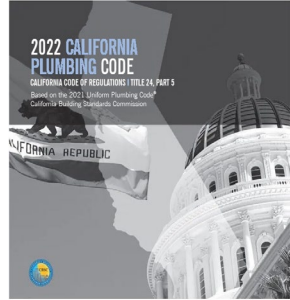




# NPC 5 for Existing Hospital Buildings

## CPC, Section 615.4

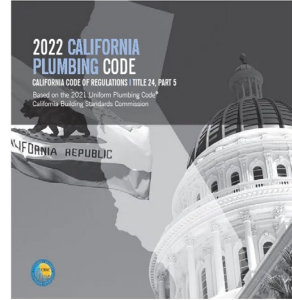
- All existing buildings remaining in the acute care inventory on January 1, 2030
  - Required to comply with the NPC-5 requirements by January 1, 2030



# NPC 5 for New Hospital Buildings

## CPC, Section 615.4

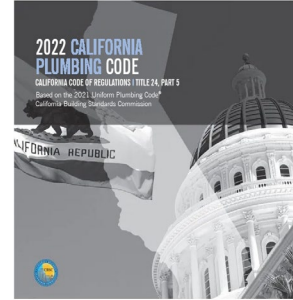
- **New seismically separate hospital buildings :**
  - 2022 California Plumbing Code, Section 615.4
  - A minimum of 150 gallons of potable water per licensed bed shall be provided with additional industrial/process water to support 72 hours of emergency operation of the subject building



# NPC 5 for New Central Plants

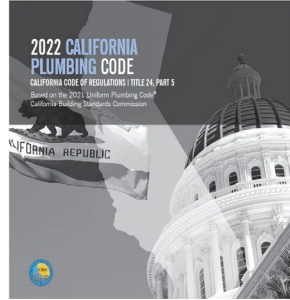
## CPC, Section 615.4

- New Central Utility Plant
  - 2022 California Plumbing Code, Section 615.4
  - Required to provide water for 72 hours min emergency operations for itself and any other new buildings
    - Not required to support the existing buildings on the facility campus,
    - Nothing prohibits installation of larger tanks at the time of construction.



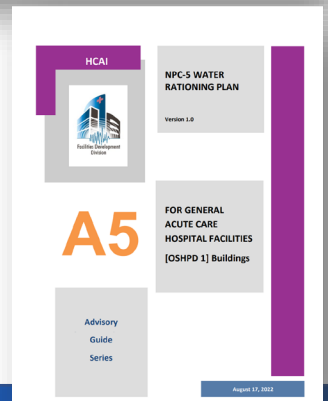
# NPC-5 Post-Earthquake Emergency Water

- The 2022 California Plumbing Code (CPC) exceptions:
  - Section 615.4 allows much smaller holding tanks where alternate arrangements have been made for delivery of water; and,
  - Section 727.0 allows alternate arrangements to be made for transportable means for sewage and liquid waste disposal.
- Where such exceptions are used, the arrangements require approval by HCAI and CDPH.



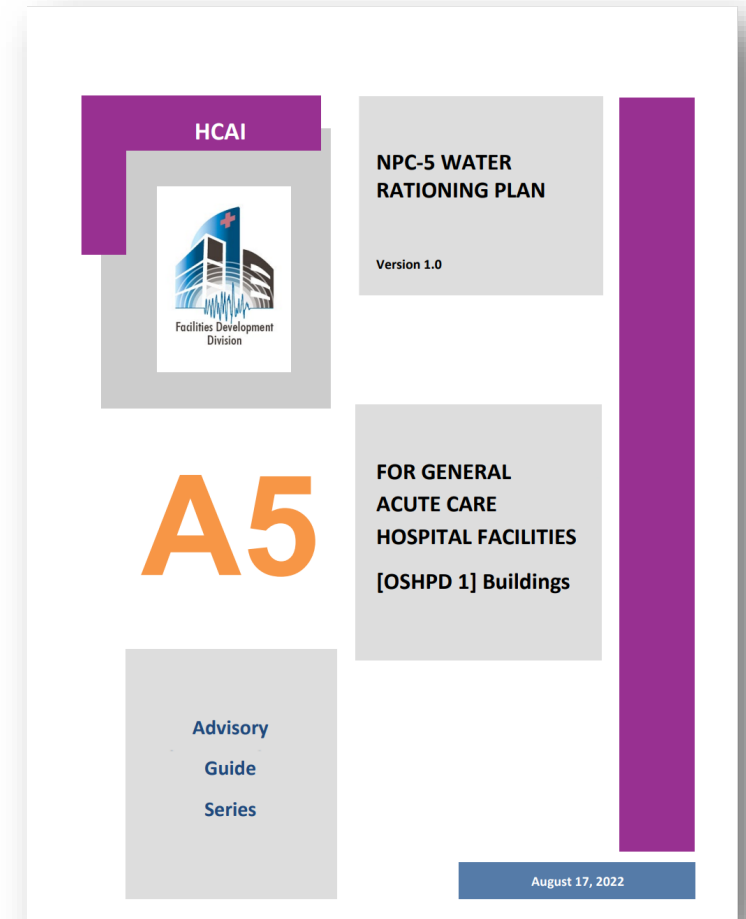
# How Much Water Does Your Hospital Need in an Emergency?

- The amount of water required to provide for 72 hours of operation is determined from:
  - The Facility's emergency operations plan; and,
  - The associated **Water Conservation/Water Rationing plan**
- Approvals req'd by CDPH, Licensing Division
- **The min. volume of potable water required per licensed bed is defined**
- **The min. volume for industrial/process water is not defined in the California Plumbing Code**
  - Which utilities and systems the hospital facility intends to operate during an emergency? and,
  - Losses in the process water for closed loop heating and cooling systems?



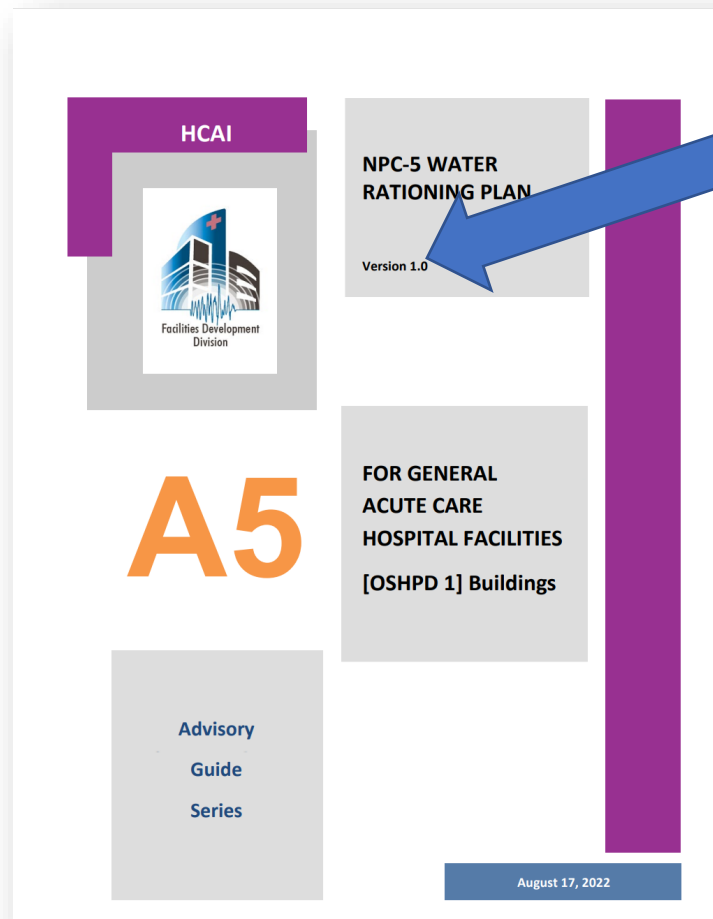
# NPC-5 Water Rationing Plan Guide

- *“The emergency water storage capacity shall be computed based on an approved Water Conservation/Water Rationing Plan to provide for 72 hours of operation, accepted by the licensing agency”*  
*T-24, Part 5 CPC, Section 615.4*
- The Water Rationing Plan shall be based on the following:
  - Water Usage under Normal Operating Conditions
  - Source(s) of Emergency Water Supply
  - Identification of Water Uses in the Building(s)
  - Water Quality
  - Water Replenishment / Tanker Trucks
  - Temperature (Heating /Cooling)
  - Impacted Services in the Building(s)
- HCAI and CDPH approvals are required for all water rationing plans





# NPC-5 Water Rationing Plan Guide - Versions



- *Please note the version number and date.*
- *Version 2.0 is being planned to be published by 7/1/2023.*
  - *FAQ is added*
  - *CDPH internal checklist is added*
  - *Minor editorial*

# Helpful Tools & Resources



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### STEP 1

#### ASSEMBLE

the facility's EWSP  
team and the  
necessary background  
documents

### STEP 2

#### UNDERSTAND

water usage through  
a water use audit

### STEP 3

#### ANALYZE

your emergency water  
supply alternatives

### STEP 4

#### DEVELOP

EWSP test/exercise

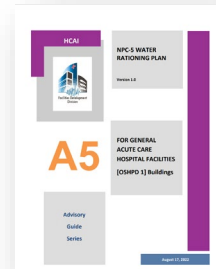
## Emergency Water Supply Planning Guide for Hospitals and Healthcare Facilities



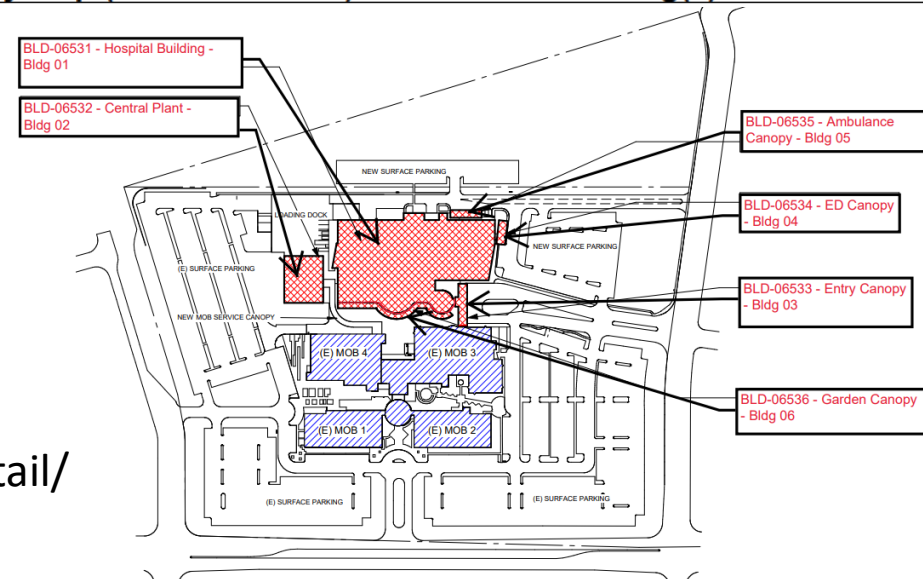
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# NPC-5 Water Rationing Plan

<b>Date:</b>	
<b>Facility ID:</b>	
<b>Facility Name:</b>	
<b>Building Number(s):</b>	BLD-xxxxx
<b>Licensed Beds:</b>	Per BLD-xxxxx
<b>Building Area(s) (SF):</b>	
<b>HCAI Construction Project Number(s) (if any):</b>	
<b>HCAI SCU Project Number(s) (if any):</b>	



**Facility Key Map (From HCAI site) Indicate the Building(s) in Water Rationing Plan**

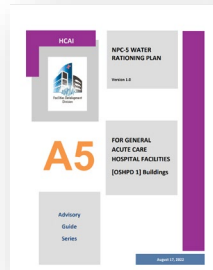


Facility key maps are available:  
<https://hcai.ca.gov/construction-finance/facility-detail/>

# NPC-5 Water Rationing Plan

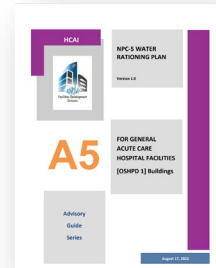
## Documents Required:

- Executive Summary Indicating:
  - Provided capacity (gallons),
  - Anticipated emergency usage (gallons); and,
  - Services that are affected
- Diagram showing the shutoff / redirection valve locations
- Architectural Floor Plans showing services (optional)
- Supporting capacity calculations



# Water Usage under Normal Operating Conditions

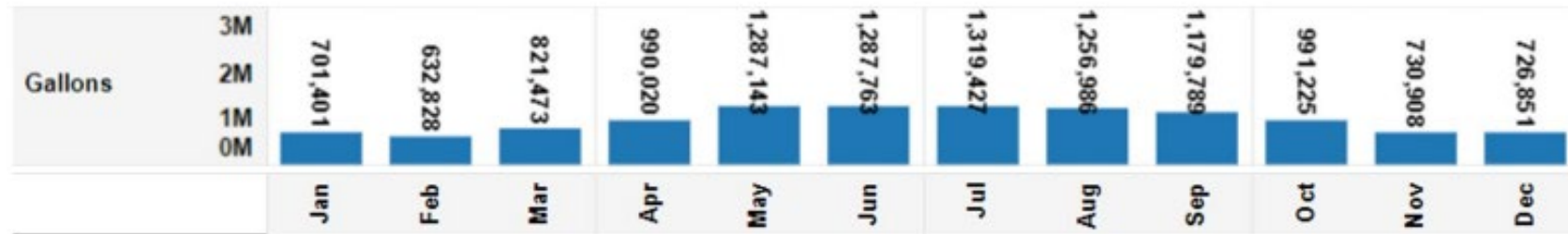
For New Buildings in design		Gallons per day
	Anticipated normal water usage (extrapolating from other similar existing buildings is acceptable.)	
For Existing Buildings		
	Wintertime minimum normal water usage	
	Summertime maximum normal water usage	



Example - Facility-wide XYZ year long water bill:

*Feb: 632,472 gallons / 28 days = 22,588 gallons per day*

*July: 1,319,427 gallons / 31 days = 42,562 gallons per day*



*(Irrigation related usage can be excluded from the calculation if emergency water tank(s) are not connected to the irrigation network.)*

# Source(s) of Emergency Water Supply

- Req'd:
  - Clear descriptions of facility's water source(s)/supplier(s) (including utility and other source/supplier contact information); and,
  - Supply main(s) and corresponding meter(s) for water entering the facility

Primary Emergency Water Supply <sup>1,4</sup>	Capacity (Gallons)	Notes
Existing Water Tank(s)		
New Water Tank(s)		
Well(s) if any (daily average) <sup>2</sup>		
Other		

Secondary Emergency Water Supply (if any) <sup>3</sup>	Capacity (gallons)	Notes (indicate location)
Bottled Water		
Other Stored Water		

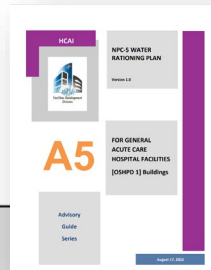
## Footnotes:

1 Primary water supply— Provide capacity, location(s) and building numbers served.

2 Well(s) including tanks, pumps, etc.: Provide well study showing anticipated average output on a daily basis. Provide a statement documenting that water quality (and/or treatment) satisfies public health standards.

3 Secondary water supply—This may include bottled water suppliers or bulk water tanker services.

4 The building that houses pump, tanks, filtering equipment must be in HCAI jurisdiction



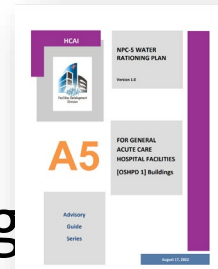


# On-Site Water Wells...

- Average gal/min may be used for design
- Water quality - filtration system
- Pumps / filters on emergency power
- Holding tanks
- The out flow can be considered similar to tanker trucks for replenishment

# Identify Water Uses in the Building(s)

- Consider all equipment, processes, and materials that use water. (e.g. HVAC, water cooled compressors, etc.)



Water Uses	Minimum Gallons per day
Plumbing Fixtures <sup>1</sup>	
Physical Plant	
Humidification	
Laundry, if outsourced, are there adequate supplies on hand?	
Housekeeping / Infection Control	
Fire & Life Safety Systems	
Sterilization equipment	
Clinical Lab	
Hemodialysis	
Kitchen / Dietary	
Pharmacy	
Drinking Water	
Others (please list)	

**[OSHPD 1]  
General Acute Care Hospital (GACH)  
PLUMBING FIXTURES TABLE**

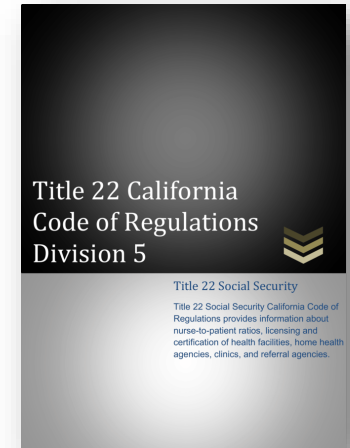
Plumbing Fixture Calculation							
Fixture Type	Quantity	Water use		Duration	Use per day <sup>1</sup>	Daily total	72 hr total
Water closet	(#)	1.28	flush	n/a	(#)	(#)	(#)
Urinal	(#)	(#)	flush	n/a	(#)	(#)	(#)
Handwash	(#)	(#)	minute	20 sec	(#)	(#)	(#)
Lavatory	(#)	(#)	minute	20 sec	(#)	(#)	(#)
Scrub Sink	(#)	(#)	minute	2 min	(#)	(#)	(#)
Process Sink	(#)	(#)	minute	tbd	(#)	(#)	(#)
Shower	(#)	1.5	minute	5 min	(#)	(#)	(#)
Clinical Sink	(#)	6.5	flush	n/a	(#)	(#)	(#)
Mop Sink	(#)	(#)	minute	tbd	(#)	(#)	(#)
Drinking Fountain	(#)	.25	minute	(30 sec)	(#)	(#)	(#)
Other							

<sup>1</sup> – Use per day factored on occupant load in building

# Water Quality

- **TITLE 22 § 70863. Water Supply and Plumbing.**

*(a) Water for human consumption from an independent source shall be subjected to bacteriological analysis by the local health department, State Department of Health or a licensed commercial laboratory at least every three (3) months. A copy of the most recent laboratory report shall be available for inspection.*



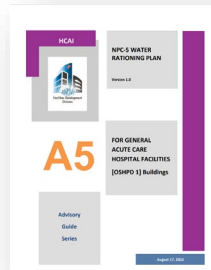
# Water Quality

- For new and/or existing tanks, indicate how water quality will be maintained.
- Provide a plan that addresses treatment processes and water quality testing (if applicable)



# Water Replenishment / Tanker Trucks

1. Identify the connection locations that will allow for placement of the tanker truck.
  - Indicate which connections are for potable water and which are for nonpotable / industrial water, if broken out separately
  - Indicate water tank(s) refill time (24, 48, 72 hours).
2. Name the company(s) that have been contracted to provide tanker trucks to replenish water.
  - Specify the date range for which the contract/agreement is valid.
3. Indicate how the contract will be monitored.
4. Provide information regarding the water use from
  1. The state drinking water authority,
  2. The public water utility; and,
  3. The local emergency management agency (if possible)

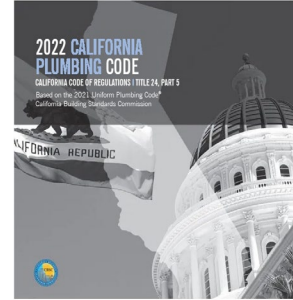




# Water Pressure During Loss of Power

## CPC Section 615.4.2

- The emergency supply of water shall be delivered to the end point of usage at sufficient pressure from the storage tank
- Sufficient pressure may be obtained by:
  - Use of gravity; or,
  - Pressure tanks; or,
  - Booster pumps
- Booster pumps are required to be connected to the emergency power supply system

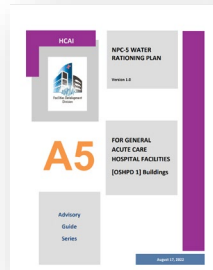


Getty Images/iStockphoto



# Identify Impacted Services in the Building(s)

- What services may be impacted/restricted in the event of a water supply interruption and/or by the implementation of facility's water rationing plan?
- List of services and details on:
  1. Impacts by the implementation of the Water Rationing Plan (by service).
  2. Reduction in capacity or services
  3. Applicable modifications to staff procedures



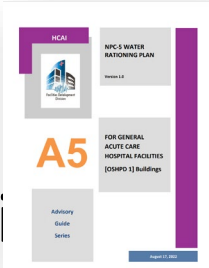
List of Services	Building Number(s)	Fully Functional	Restricted or Impacted	N/A
<b>Basic</b>				
Medical & Nursing				
Surgical & Anesthesia				
Clinical Laboratory				

# Further Considerations

- Pharmacy
  - Are there any impacts to compounding oral and IV clean rooms (cleaning, handwashing, and eyewash)?
  - . . . .
- Dietetic
  - Has normal dietetic service water usage been determined? If there is a plan to reduce water usage in dietetic service, describe what the plan is and how the reduction is calculated.
  - . . .
- Life Safety Code
  - Does the Water Rationing Plan reflect the same Emergency Preparedness requirements as their Emergency Preparedness Program?
  - . . .

# Temperature (Heating /Cooling)

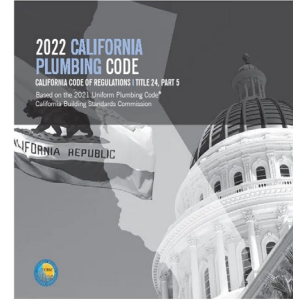
- If the facility is planning on limiting heating/cooling, what services will be affected/restricted?
- How will the facility monitor and maintain adequate humidity, temperature, and air pressure?



List of services to be affected by heating/cooling modifications from normal day to day operations	Building Number(s)

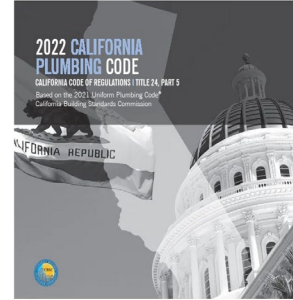
# Emergency Wastewater Storage

- Hospitals discharge considerable amounts of chemicals and microbial agents in their wastewaters.
  - .... Pathogens & harmful bacteria, cytostatic agents, anesthetics , antibiotics, disinfectants iodinated contrasted media radioactive substances, toxic chemical, heavy metals. . .
- **CPC, Section 727.0 - Emergency Sanitary Drainage to support 72 hours of continuing operation in the event of an emergency**



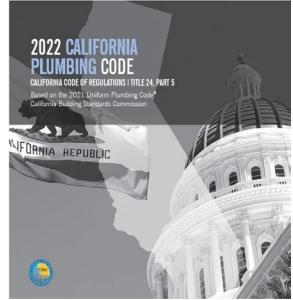
# Emergency Wastewater Storage

- New acute care hospital buildings shall have:
  - On-site holding tank[s] to store sewage and liquid waste sufficient to operate essential hospital utilities and equipment in the acute care hospital building
- Existing general acute care hospital in operation after January 1, 2030 shall have:
  - On-site holding tank[s] to store sewage and liquid waste sufficient to operate essential hospital utilities and equipment in the acute care hospital buildings on the campus
- The emergency waste holding capacity shall be **based on the Water Conservation/Water Rationing Plan** required in CPC, Section 615.4.1



# Emergency Wastewater Storage

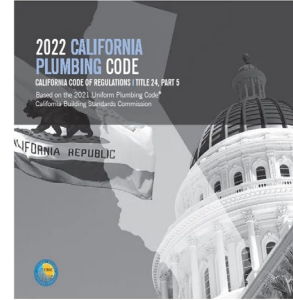
- CPC, Section 727.0, Exception:
  - Hospital has a plan for leak-proof bags for on-site storage for sewage and liquid waste if adequate storage facility(s) are provided
  - Hook-ups that allow for the use of transportable means of sewage and liquid waste disposal



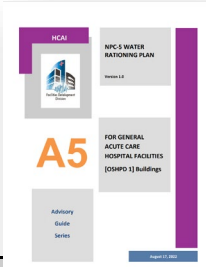


# Emergency Wastewater Storage

- CPC, Section 727.0, Exception:
  - Facilities for waste collection and storage :
    - Lockable room[s] or lockable screened enclosure[s] of adequate capacity to store the quantity of waste anticipated for the washing and cleaning of containers and for the storage of sewage and waste water.
      - Floor and curb. A sealed concrete floor or other approved impervious flooring with a curb and with a drain connected to the sewer.
      - Water. Steam or hot water and cold water supplies in accordance with the California Plumbing Code.
    - Comply with:
      - Local health and environmental authorities' requirements; and,
      - California Department of Public Health requirements for medical waste management



# Emergency Wastewater Storage

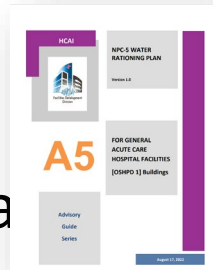


Primary Emergency Wastewater Storage <sup>1</sup>	Capacity (Gallons)	Notes
Existing Wastewater Tank(s)		
New Wastewater Tank(s)		
<i>Secondary Emergency Wastewater (if any)</i>		
Leak-proof bags <sup>2</sup>		
Location of leak-proof bags <sup>2</sup>		



# Emergency Wastewater Storage

- There is no minimum size for the holding tank(s) provided in the California Plumbing Code.
  - The capacity shall be based on the Water Conservation/Water Rationing Plan required in CPC, Section 615.4.1.
- The purpose of the holding tank is to permit 72 hours of continuing operation if the external sewer connection is severed.
  - No HCAI requirements for connection of the holding tank to the existing sewer line;
  - Connections should be made with sufficient valves to isolate the external sewer lines.
- Use of leak-proof bags requirements:
  - Adequate storage
  - CDPH and local health and environmental authorities' approvals
  - Location for storage complies with the requirements of a lockable screen enclosure, floor, curb, drain connected to a sewer and supply of water.



# NPC-5 Water Rationing Plan – HCAI/CDPH Review & Approval

- Water Rationing Plan
  - Submit to HCAI
  - HCAI to triage, give comments/feedback to the DPOR
  - Once agreed, HCAI will route the document to CDPH for approval.
  - If CDPH has comments, HCAI will forward to the DPOR
- New buildings → HCAI region projects (H, I type projects..)
- Existing buildings, campus wide plan → HCAI Seismic Compliance Unit (SER, SRU type projects)

# CDPH – Evaluation tool (internal)

- The CDPH checklist will be included in the A5 Guide version 2.0 as a reference.
- There is no need to submit this checklist to HCAI or CDPH

September 2022

## Hospital Emergency Water Rationing Plan Evaluation Tool

Directions: Pursuant to [Title 24 California Code of Regulations section 615.4.1](#), general acute care hospitals (GACH) must have onsite water supply sufficient to operate for 72 hours, in the event of an emergency. GACHs must develop a water rationing plan that is reviewed and approved by the Department of Health Care Access and Information (HCAI) and the Center for Health Care Quality (CHCQ). GACHs must store a minimum of 150 gallons of water per licensed bed (50gal/bed/24-hours).

Use the below requirements to evaluate a GACH's water rationing plan.

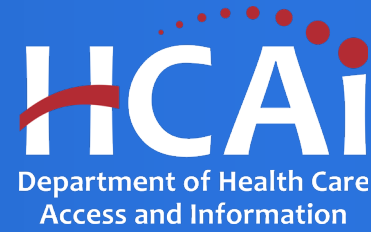
### I. General Requirements

Plan Component	Evaluation
Plan indicates how the services are provided in the event of an emergency. GACHs must provide basic services such as medical, nursing, surgical, anesthesia, laboratory, radiology, pharmacy, and dietary services. The plan should describe how services that rely on water will be provided.	Evaluation: <input type="checkbox"/> Met <input type="checkbox"/> Not Met <input type="checkbox"/> N/A Comments:
<p><b>NOTE:</b> Rural GACHs as defined under <a href="#">HSC section 1250(a)</a> are not required to provide surgical and anesthesia services.</p> <p>Authority:</p> <ul style="list-style-type: none"> <li>• <a href="#">HSC section 1250(a), 129680, &amp; 130005(c)</a></li> <li>• <a href="#">Title 24 CCR section 615.4.1</a></li> </ul>	



# 5-minute break



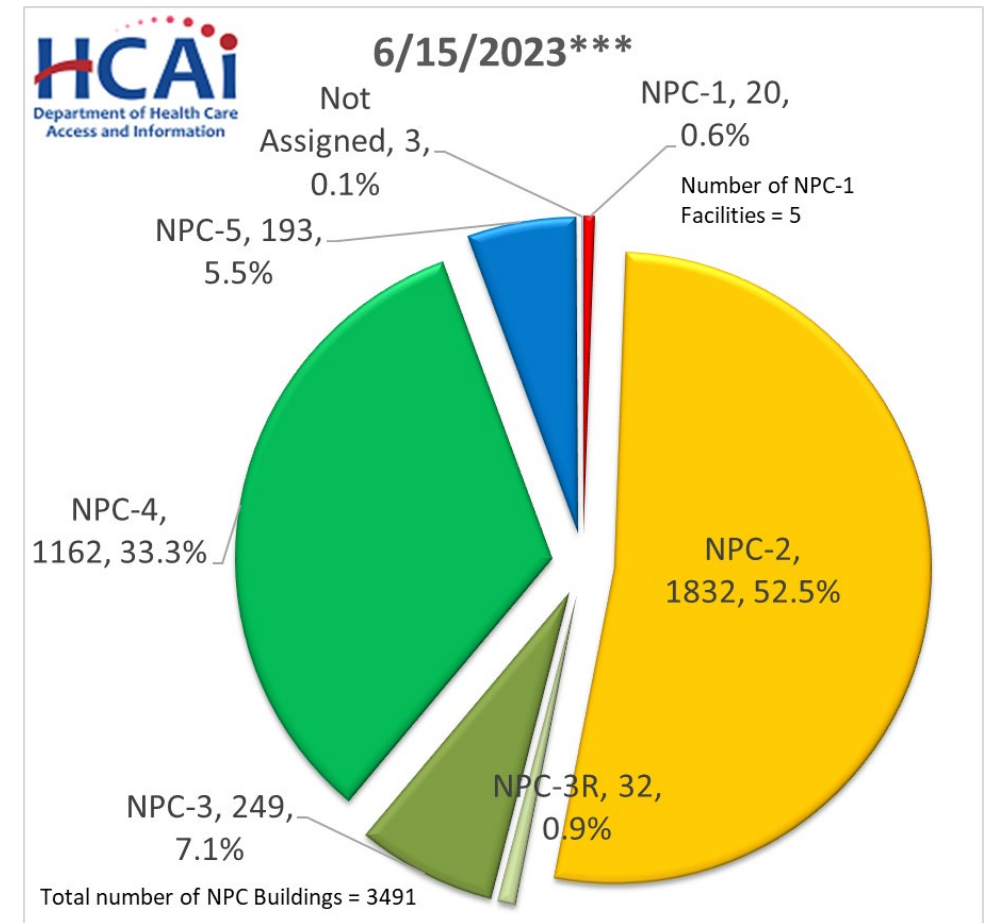
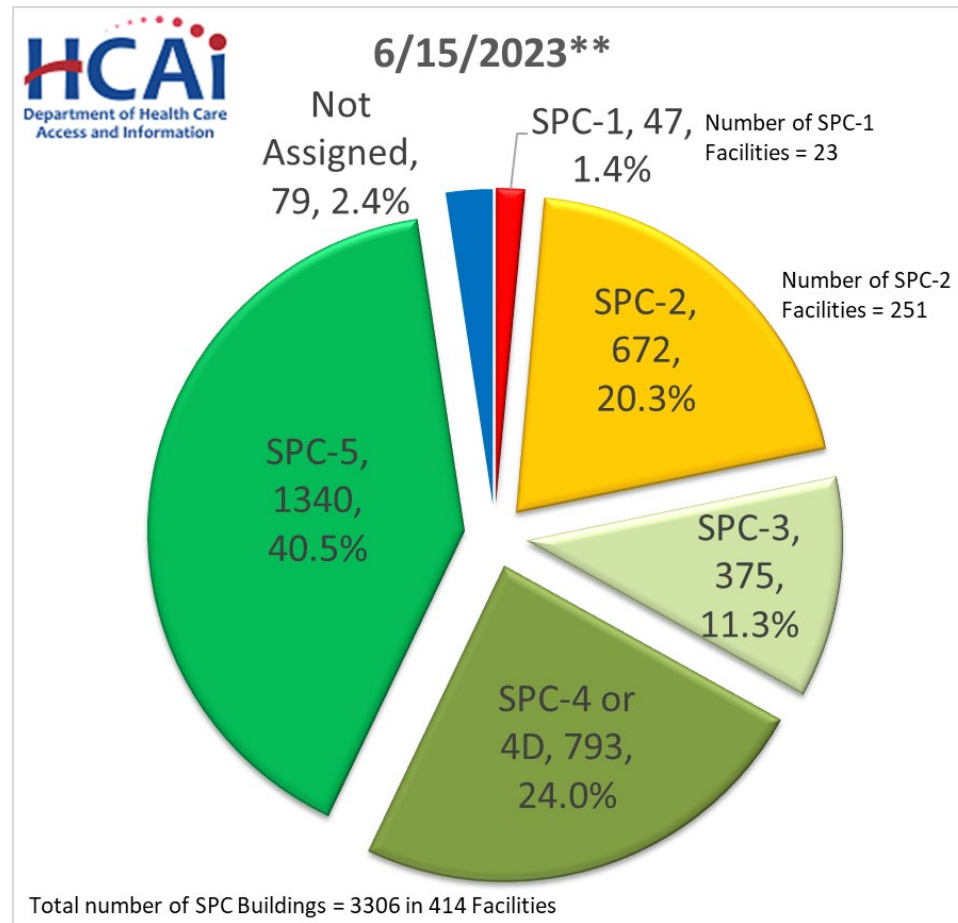


# PIN 75 (AB1882)

## Hospital Seismic Safety Public Notices and Annual Status Update Reporting

# Seismic Compliance

SPC 3, SPC 4D, SPC 4, SPC 5 AND NPC 5 → 2030 Seismic Compliant



# What is AB 1882?

AB 1882 seeks to raise the awareness of a general acute care hospital's compliance with the seismic safety regulations or standards outlined in the Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983 (HFSSA) through:


- 1) Seismic information on HCAI website (Effective 1/1/23)
- 2) Seismic information on project documentation (Effective 1/1/23)
- 3) Updating Emergency Training, Response, and Recovery Plans, Capital Outlay Plans (Effective 7/1/23)
- 4) Annual status updates, reporting services in each building (Deadline 1/1/24, then annual)
- 5) Facility wide signage/notice showing seismic rating (Deadline 1/1/24)

until seismic compliance is achieved

# AB 1882 Implementation

## PIN 75 Hospital Seismic Safety Public Notices and Annual Status Update Reporting:


- Provides the policy for the implementation of AB1882
- Published on HCAI website: [Codes and Regulations – HCAI](#)
- Published 12/12/2022
- Revised 5/30/2023



Department of Health Care Access and Information  
Office of Statewide Hospital Planning and Development  
2020 West El Camino Avenue, Suite 800 • Sacramento, CA 95833 • (916) 440-8300  
355 South Grand Avenue, Suite 1900 • Los Angeles, CA 90071 • (213) 897-0166

**POLICY INTENT NOTICE**

**SUBJECT**  
Hospital Seismic Safety  
Public Notices and Annual Status Update Reporting

**PIN: 75**  
**Effective: 12/12/2022**  
**Revised: 05/30/2023**

**PURPOSE**

The purpose of this Policy Intent Notice (PIN) is to provide a policy for the implementation of the hospital seismic safety public notices and status updates for hospital buildings per Assembly Bill (AB) 1882 (Chapter 584, Statutes of 2022).

**BACKGROUND**

AB 1882 seeks to raise the awareness of a general acute care hospital's compliance with the seismic safety regulations or standards outlined in the Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983 (HFSSA) through public notices, hospital campus postings, Department of Health Care Access and Information (HCAI) website, and annual status updates until compliance is achieved.

AB 1882 amended Health and Safety Code Section (HSC) 130055, and added Sections 130002, 130006, and 130066.5:

**130002**

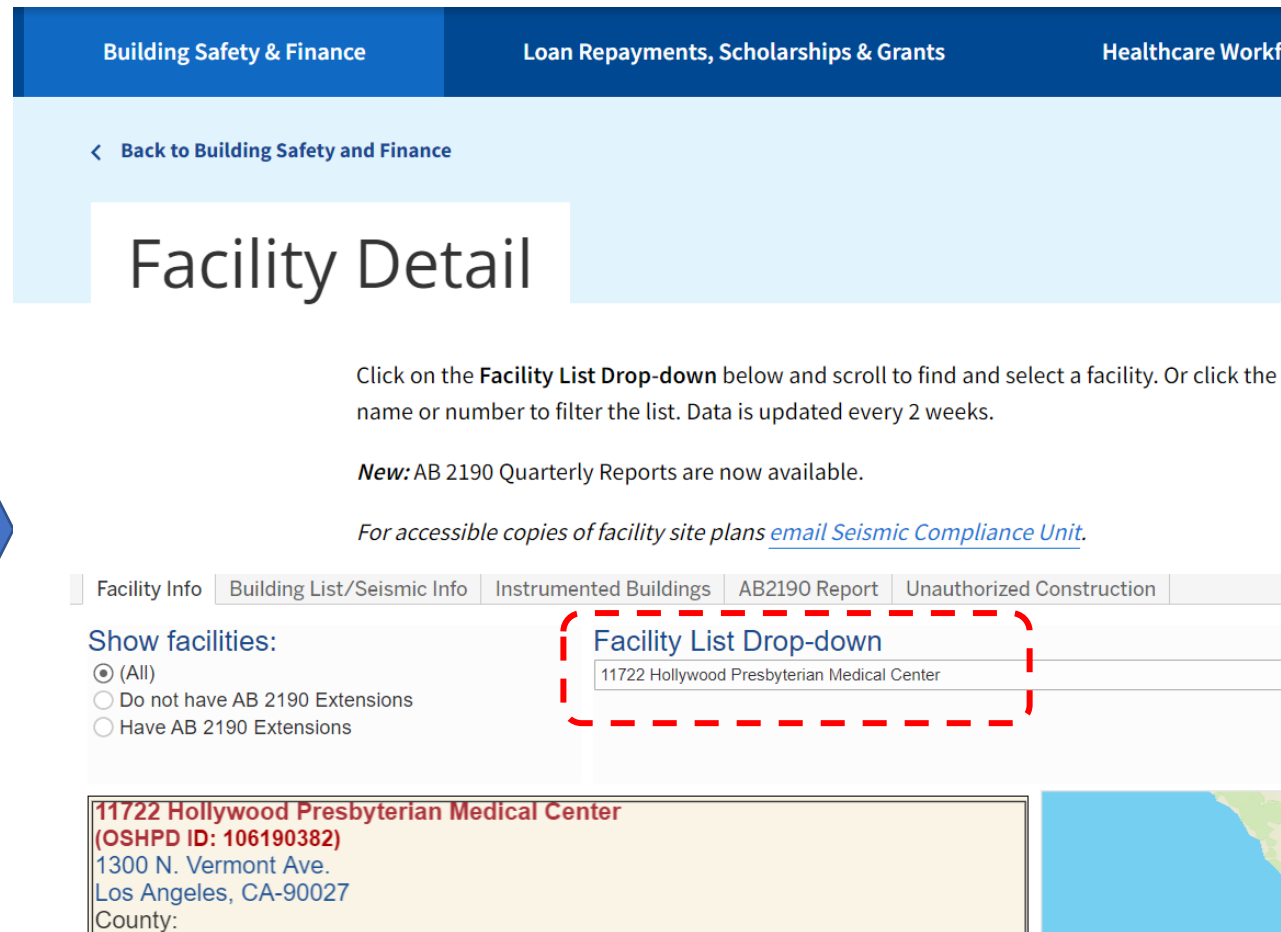
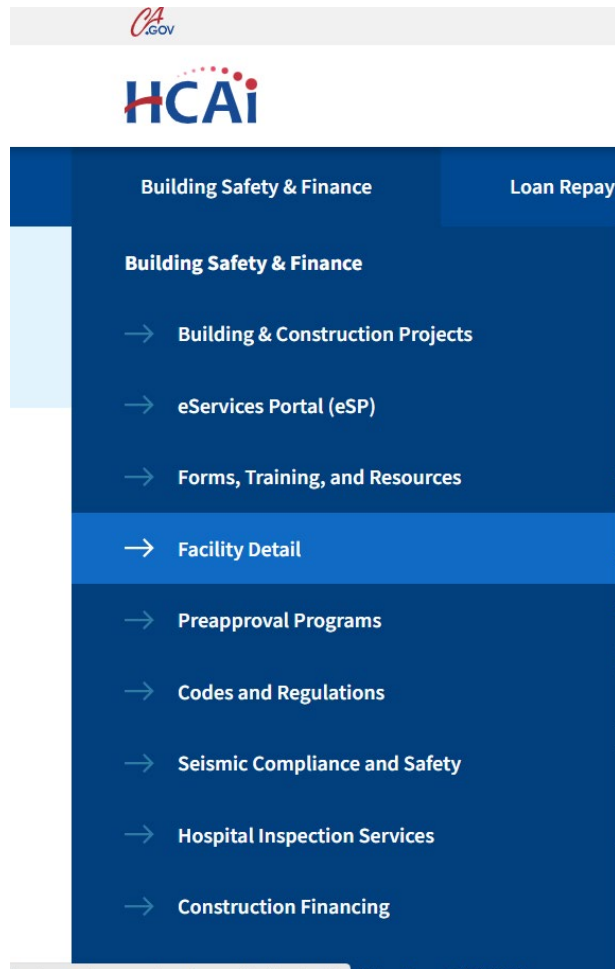
(a) The Legislature finds and declares all of the following: (a) The Legislature finds and

# 1) AB1882: HCAI Website

## **Identification of General Acute Care Buildings on HCAI Website (Effective 1/1/2023)**

- SPC-2 buildings are identified on the HCAI website as “These buildings do not significantly jeopardize life, but may not be repairable or functional following an earthquake”.
- SPC-5/NPC-5 buildings are identified on the HCAI website as “Earthquake Resilient”.

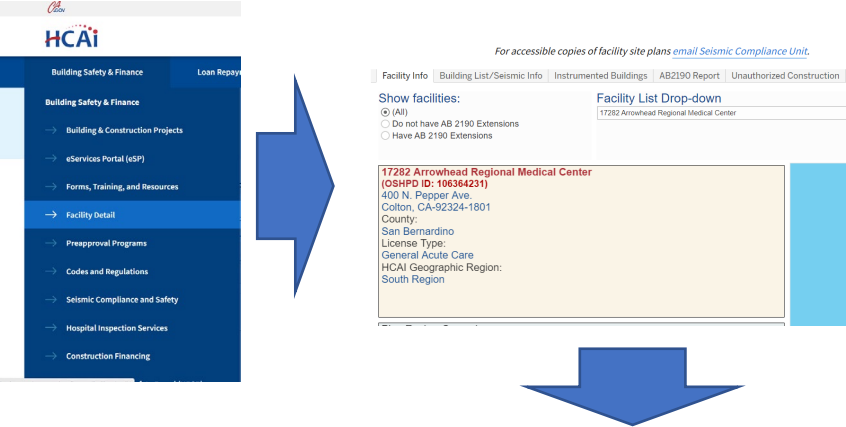
# AB1882: HCAI Website (Effective 1/1/2023)





## 11722 Hollywood Presbyterian Medical Center

Bldg Num	Bldg Name	Classification & Status	RACs Date	NPC Extension Date	Building Code	Year Built	Stories	Height in Feet	Hazus Score	Instrumented	Construction Type	Sprinklered	
<a href="#">BLD-01977</a>	North Wing	OSHPD 1, In Service	AB2190 Extension 05/22/2024 Rebuild	1/1/2030	Unknown	1923	6	76	2010 HAZUS SCORE = 17.8	No			SPC: 1 NPC: 2
<a href="#">BLD-01978</a>	South Wing	OSHPD 1, In Service	1/1/2030	1/1/2030	1959 City of Los Angeles (COLA)	1960	4	51	2007 HAZUS SCORE = 3.10 2010 HAZUS SCORE = 1.10	Yes			SPC: 2 NPC: 2 This building does not significantly jeopardize life, but may not be repairable or functional following an earthquake
<a href="#">BLD-01979</a>	D & T Tower	OSHPD 1, In Service	1/1/2030	1/1/2030	1971 City of Los Angeles (COLA)	1971	11	147	2007 HAZUS SCORE = 3.79 2010 HAZUS SCORE = 0.59	Yes			SPC: 2 NPC: 2 This building does not significantly jeopardize life, but may not be repairable or functional following an earthquake
<a href="#">BLD-01980</a>	Patient Tower	OSHPD 1, In Service		1/1/2030	1979 California Building Code (CBC)	1992	10	Unknown		No			SPC: 3 NPC: 2



17282 Arrowhead Regional Medical Center

Bldg Num	Bldg Name	Classification & Status	RACs Date	NPC Extension Date	Building Code	Year Built	Stories	Height in Feet	Hazus Score	Instrumented	Construction Type	Sprinklered	
<a href="#">BLD-00071</a>	Diagnostic & Treatment Bldg.	OSHPD 1, In Service			1989 California Building Code (CBC)	2000	4	Unknown		Yes			SPC: 5 NPC: 5 Earthquake Resilient
<a href="#">BLD-00072</a>	Nursing Tower	OSHPD 1, In Service			1989 California Building Code (CBC)	2000	6	Unknown		Yes			SPC: 5 NPC: 5 Earthquake Resilient
<a href="#">BLD-00073</a>	Clinics Building	OSHPD 1, In Service			1989 California Building Code (CBC)	2000	3	Unknown		No			SPC: 5 NPC: 5 Earthquake Resilient
<a href="#">BLD-00074</a>	Mental Health Building	OSHPD 1, In Service			1989 California Building Code (CBC)	2000	UNK NOW N	Unknown		No			SPC: 5 NPC: 5 Earthquake Resilient

## 2) AB1882: Documentation (Effective 1/1/2023)

### Identification of General Acute Care Buildings for HCAI Projects (Effective 1/1/2023)

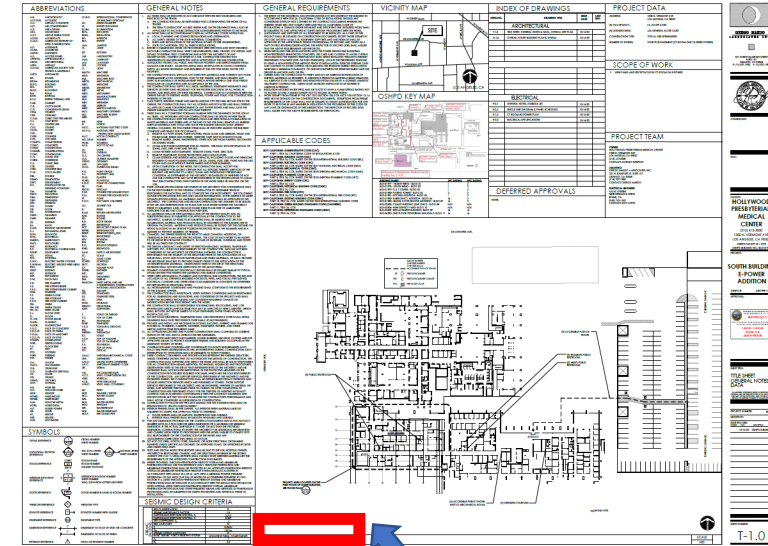
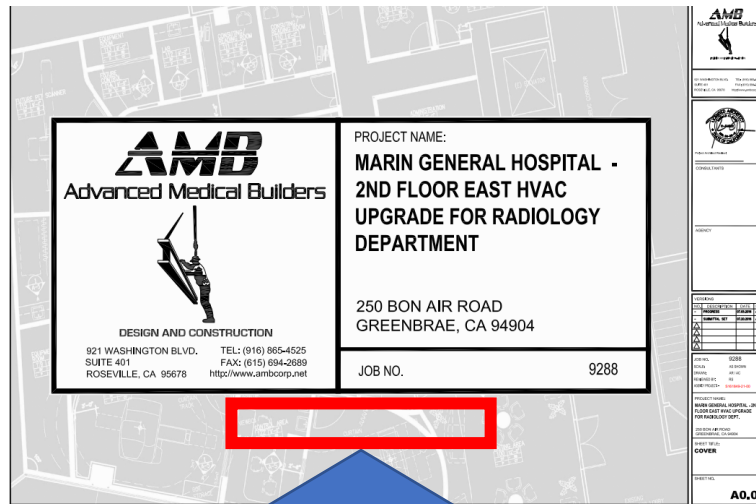
SPC-2 buildings, the following documentation **shall** include building identification as, “These buildings do not significantly jeopardize life, but may not be repairable or functional following an earthquake”,

and for SPC-5/NPC-5 buildings, the following documentation shall **may** include building identification as “Earthquake Resilient”:

- On the title sheet of construction drawings and title sheet of specifications.  
**Excluding:** Amended Construction Documents (ACD), Request for Information (RFI), Calculations, and Testing, Inspection & Observation (TIO).
- On the title sheet of seismic compliance evaluation reports.

# AB1882: Documentation (Effective 1/1/2023)

## Examples of title sheet AB1882 Notice:



### 3) AB1882: Emergency training, Response, and Recovery Plans, Capital Outlay Plans (Effective 7/1/2023)

On and after July 1, 2023, general acute hospital building owners shall do both of the following annually until each of the hospital buildings owned by that hospital building owner is compliant with Section 130065.

- a) Include all pertinent information regarding the building's expected earthquake performance in emergency training, response, and recovery plans.
- b) Include all pertinent information regarding the building's expected earthquake performance in capital outlay plans.

# AB1882: Emergency training, Response, and Recovery Plans, Capital Outlay Plans (Effective 7/1/2023)

- There is no submittal requirements to OSHPD for Emergency training, Response, and Recovery Plans or Capital Outlay Plans.
- Facility is responsible to update these plans.



## 4) AB1882: Annual Status Reporting (Deadline 1/1/2024, then annual)

### What is to be reported?

On or before January 1, 2024, and annually thereafter, the owner of an acute care inpatient hospital that includes a general acute care building that is not SPC-3/NPC-5, SPC-4D/NPC-5, SPC-4/NPC-5, or SPC-5/NPC-5 shall provide an annual status update on the **Structural Performance Category ratings** of the buildings and **the services** provided in each hospital building on the hospital campus

# AB1882: Annual Status Reporting

## What is to be reported?

- The reporting shall include all GAC buildings in a facility where any one GAC building is not compliant with HSC §130065.
- For example, if one of the GAC buildings is SPC-2/NPC-3 and all other GAC buildings are SPC-5/NPC-5, all services in all GAC buildings (including SPC-2 and SPC-5 buildings) are required to be reported annually per HSC §130066.5.
- This report shall be submitted annually so long as the facility contains any buildings providing general acute care services that are not SPC-3/NPC-5, SPC-4/NPC-5, SPC-4D/NPC-5, SPC-5/NPC-5.

# AB1882: Annual Status Reporting

## How is it reported to HCAI?

The annual status report shall be submitted electronically using the eServices Portal located on the HCAI website.

# AB1882: Annual Status Reporting

## When is the reporting to HCAI?

The typical annual reporting period to HCAI is November 1<sup>st</sup> through December 1<sup>st</sup>.

However, we have already opened reporting portal this first year, to give ample time to the facilities to go through the new reporting process. The portal will close December 1<sup>st</sup>.

# AB1882: Annual Status Reporting

The annual report will be published on our website before Dec 31st.

A pdf report will be posted for each facility for easy download.

Facilities will be able to share the report with any other entity.

# AB1882: Annual Status Reporting

## Where else is it required to be reported?

Reporting to be submitted to all of the following entities (submitted by the facility):

- 1) The county board of supervisors in whose jurisdiction the hospital building is located.
- 2) The city council in whose jurisdiction the hospital building is located, if applicable.
- 3) Any labor union representing workers who work in a general acute care building that is not SPC-3/NPC-5, SPC-4D/NPC-5, SPC-4/NPC-5, or SPC-5/NPC-5.
- 4) The board of directors of the special district or joint powers agency that provides fire and emergency medical services in the jurisdiction in which the hospital building is located, if applicable.
- 5) The department. **[This is HCAI]**
- 6) The board of directors of the hospital.
- 7) The local office of emergency services or the equivalent agency.
- 8) The Office of Emergency Services.
- 9) The medical health operational area coordinator.



# AB1882: Annual Status Reporting

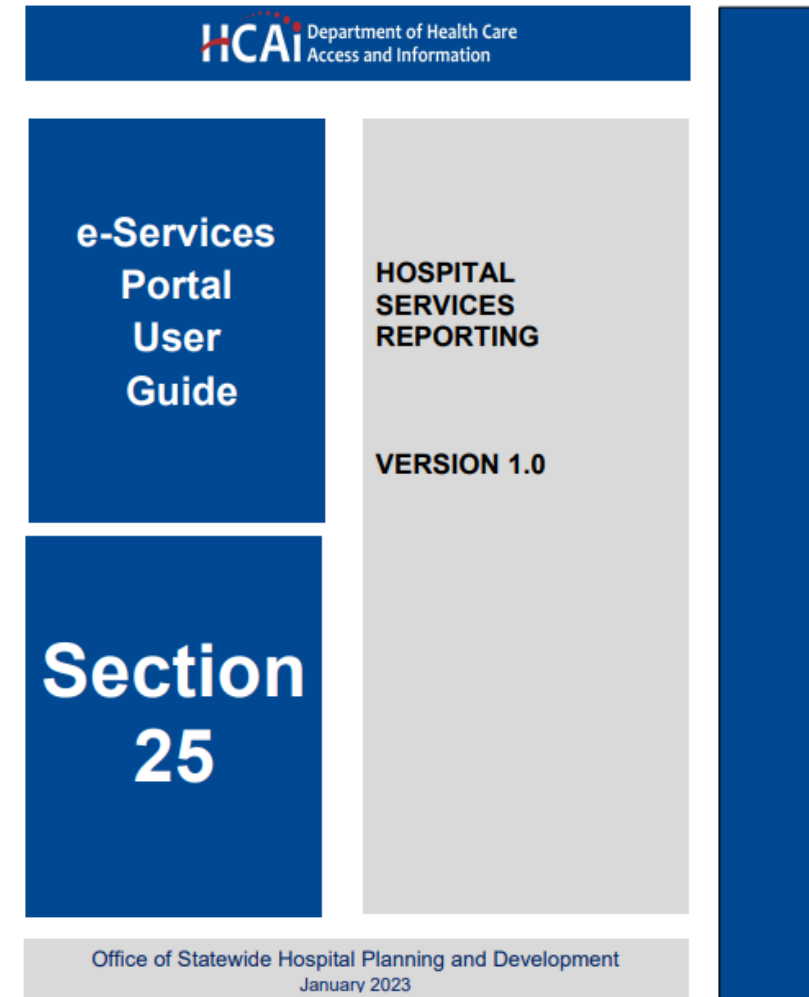
Facilities are responsible for submitting the required report to all entities.

# AB1882: Application Process

June 20, 2023

## AB1882 Service Reporting

- One application per facility (no \$250 fee)
- Please follow eSP user guide 25 on HCAI website
- [Hospital Services Reporting](#)
- Multiple buildings listed on the same application



# FAQs - AB1882 Services Reporting

## **Do facilities need to hire a design professional to submit AB 1882 Service reporting?**

- No. An authorized facility representative can submit the application without a design professional.

# FAQs - AB1882 Services Reporting

## **Who must report yearly under AB 1882?**

- All operational hospitals licensed as general acute hospitals or that have any general acute care category licensed beds that are subject to SB 1953 requirements.
- This means acute rehabilitation hospitals, surgical hospitals, etc., are subject to the reporting requirements.

## **What documents are required for AB 1882 service reporting application?**

Please follow the eSP [Hospital Services Reporting](#) User Guide. No additional documents are required.

# FAQs - AB1882 Services Reporting

**What if my facility no longer has any acute care functions, but is licensed as a General Acute Hospital?**

Contact CDPH L&C to see if the facility needs to be relicensed to reflect the current usage. Once the facility is relicensed as something other than a General Acute Care hospital, please email Seismic Compliance Unit (SCU) a scanned copy of the paper license and the record will be updated to exempt the AB 1882 reporting requirement.

# FAQs - AB1882 Services Reporting

**When filling out the services in the eSP application website, can I leave a blank for service type for a building?**

- No, all buildings need at least one service selected. If the building doesn't contain any of the acute care services, select 'Non-GAC Uses' and enter a brief description of the building service(s).



# FAQs - AB1882 Services Reporting

## **What if I need to add a GAC building to the inventory?**

- Submit an “add a building” application to the Seismic Compliance Unit? Following the creation of the new building number, AB 1882 reporting of the services for the added building is required.

# FAQs - AB1882 Services Reporting

## **What if I need to remove a GAC building from the inventory?**

- Submit an application to the SCU explaining why the building should be removed from the building inventory.
- Reasons include demolition, reclassification as an OSHPD 1R, building returned to the local authority having jurisdiction, etc.
- The AB 1882 services list will be updated following the removal of the building.

## 5) AB1882: Public Notice (Deadline 1/1/24)

- Buildings compliant with HSC §130065 means buildings with SPC-3/NPC-5, SPC-4D/NPC-5, SPC-4/NPC-5, or SPC-5/NPC-5 ratings.
- Before January 1, 2024, the owner of an acute care inpatient hospital that includes a general acute care (GAC) building that is not SPC-3/NPC-5, SPC-4D/NPC-5, SPC-4/NPC-5, or SPC-5/NPC-5 shall post a notice in a public space, designated as **any lobby or waiting area.**

# AB1882: Public Notice (Deadline 1/1/24)

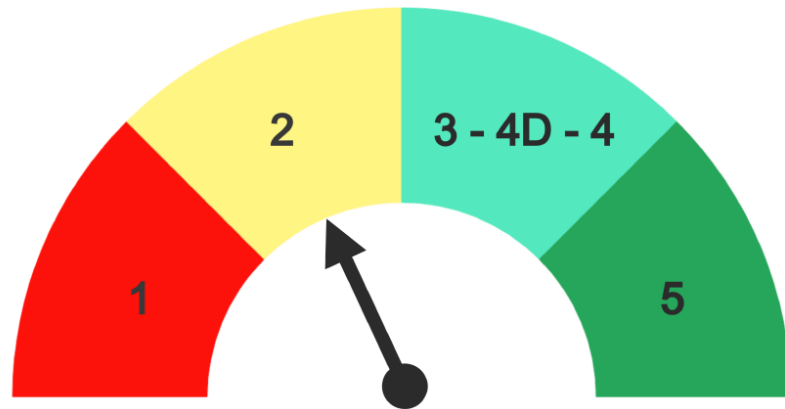
- The proposed location and the content of the notice are required to be accepted by the department through an application.
- If there is no lobby/waiting area, an appropriate posting location will be chosen.

# AB1882: Public Notice (Deadline 1/1/24)

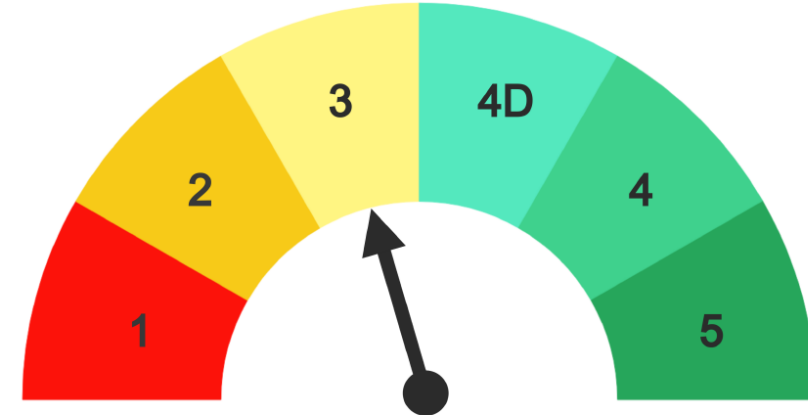
- The notice sign shall be in accordance with the California Building Code, California Code of Regulations, Title 24, Part 2, Volume 2, CHAPTER 11B, Division 7, Section 11B-703 Signs.
- The size of the sign to be 8½ inches x 14 inches

# This Building's Seismic Performance Rating

Structural Integrity



Equipment and Systems  
Critical to Patient Care



The State of California has determined that this building does not significantly jeopardize life, but may not be repairable or functional following an earthquake.

More info:



Facility Number:

Building Number: BLD-



# AB1882: Public Notice

## Notice Requirements of General Acute Care (GAC) Buildings

	<b>NPC-1, 2, 3, 4D, 4</b>	<b>NPC-5</b>
<b>SPC-1</b>	Notice Type A	Notice Type A
<b>SPC-2</b>	Notice Type B	Notice Type B
<b>SPC-3</b>	Notice Type C	Notice not required, see optional Notice Type D
<b>SPC-4D</b>	Notice Type C	Notice not required, see optional Notice Type D
<b>SPC-4</b>	Notice Type C	Notice not required, see optional Notice Type D
<b>SPC-5</b>	Notice Type C	Notice not required, see optional Notice Type E

# AB1882: Public Notice

June 20, 2023

## Notice Type A:

“The State of California has determined that this hospital building does not meet seismic safety standards. This building may jeopardize life and is a danger to the public in an earthquake.”

## Notice Type B:

“The State of California has determined that this building does not significantly jeopardize life, but may not be repairable or functional following an earthquake.”

## Notice Type C:

“The State of California has determined that the hospital building is at risk of not being functional to provide care to its patients or the community after an earthquake.”

## Notice Type D:

“The State of California has determined that the hospital building meets seismic safety standards, but the hospital building may not be functional to provide care to its patients or the community after an earthquake.”

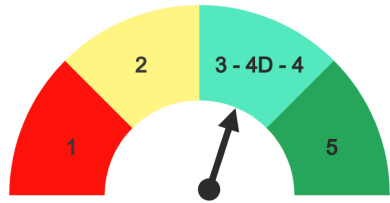
## Notice Type E:

“The State of California has determined that the hospital building meets seismic safety standards and designated this building as an Earthquake Resilient Building.”

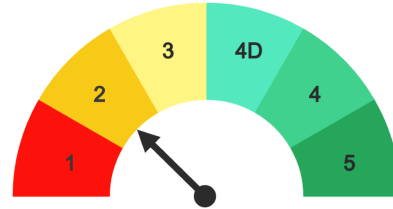
# This Building's Seismic Performance Rating

June 20, 2023

Structural Integrity



Equipment and Systems  
Critical to Patient Care



The State of California has determined that the hospital building is at risk of not being functional to provide care to its patients or the community after an earthquake.

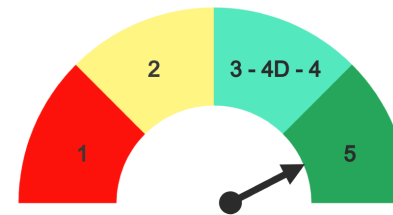
More info:



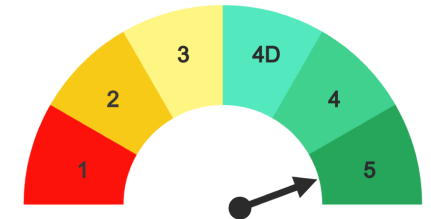
Facility Number:   
Building Number: BLD-

# This Building's Seismic Performance Rating

Structural Integrity



Equipment and Systems  
Critical to Patient Care



The State of California has determined that the hospital building meets seismic safety standards and designated this building as an Earthquake Resilient Building.

More info:



Facility Number:   
Building Number: BLD-

# AB1882: Public Notice

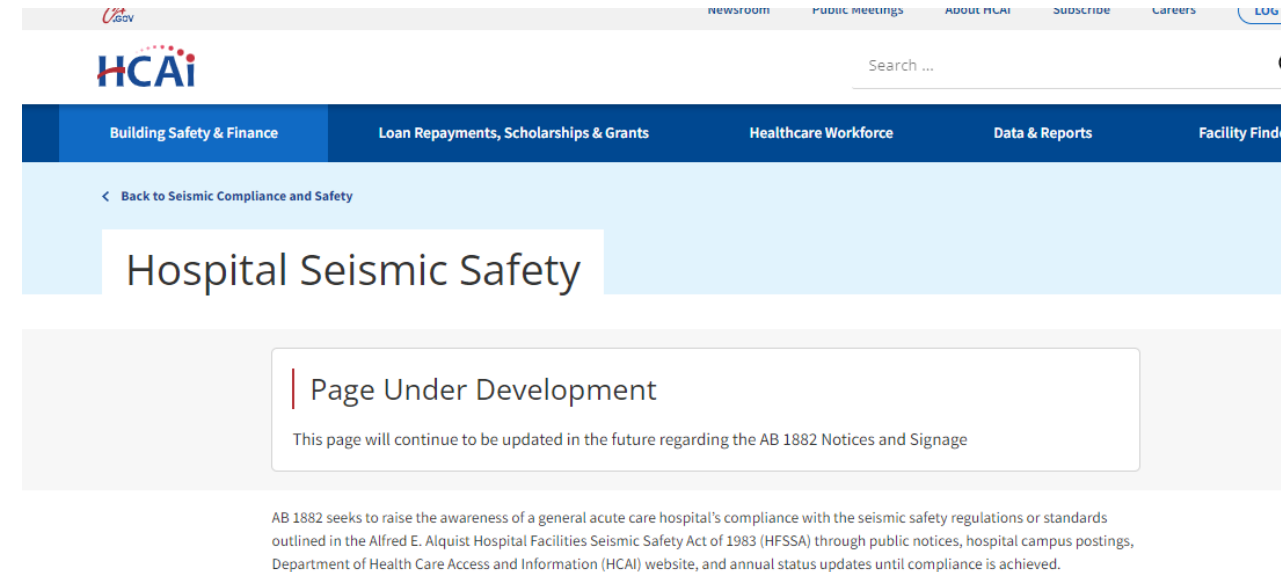
June 20, 2023



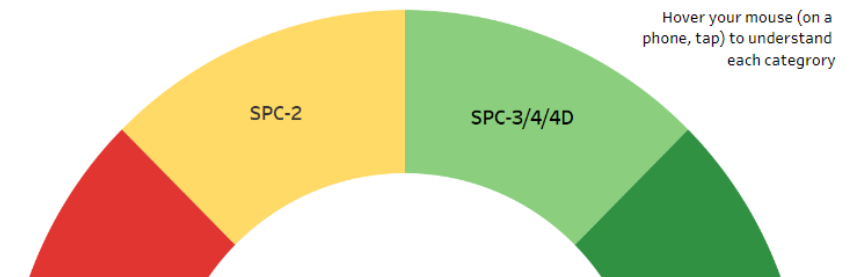
QR Code links to a specific HCAI landing page.

This webpage is being designed for general public.

Will try to explain the ratings without technical terms, but will also include details/resources for interested parties.



## Structural Integrity

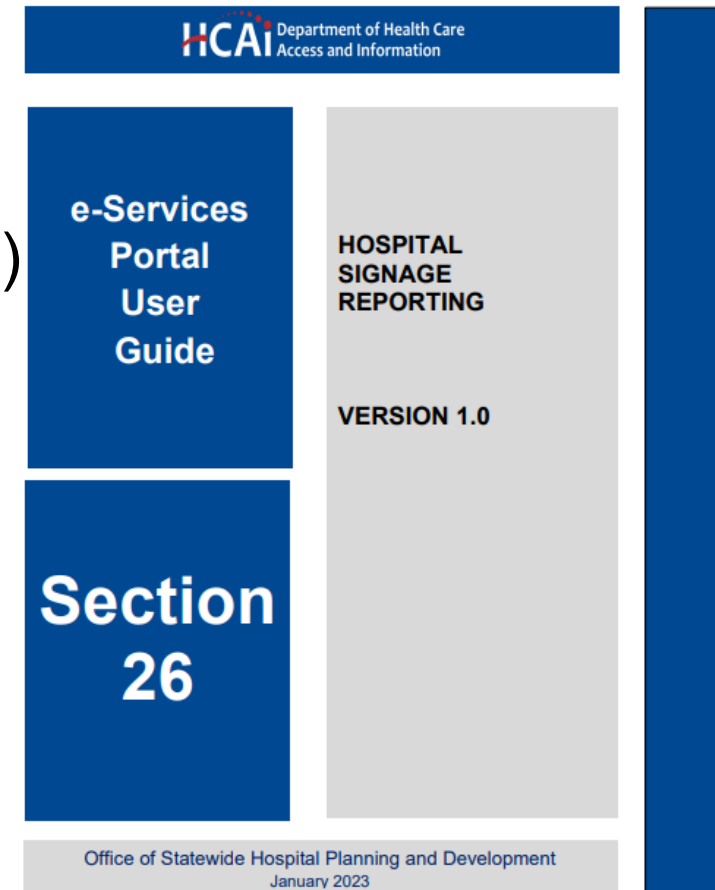


# AB1882: Application Process

June 20, 2023

## AB1882 Signage

- One application per building is required (no \$250 fee)
- Please follow eSP user guide 26 on the HCAI website:  
[Hospital Signage Reporting User Guide](#)
- Once the documents are reviewed and accepted by HCAI, HCAI field staff will verify the signage on site
- No permit is generated



# FAQs - AB1882 Signage

**PIN 75 states the following: "The proposed location and the content of the notice are required to be accepted by the department through a construction project submittal." Is an Amended Construction Document (ACD) or a new project acceptable to submit for posting?**

Please submit an application with a specific record type (GACSIGN) using the [eServices Portal](#) (eSP). Please follow the [Hospital Signage Reporting User Guide](#) for the step-by-step application process.



# FAQs - AB1882 Signage

## **What documents are required for the signage application?**

Please follow the eSP [Hospital Signage Reporting User Guide](#).

A floor plan showing the signage locations and the signage page selected and filled in from PIN 75 are required to be uploaded as part of the AB 1882 signage application.

# FAQs - AB1882 Signage

## **Is only one notice needed for each non-compliant structure?**

The law requires posting in any lobby or waiting area generally accessible to patients. The department may agree with a fewer number of posting locations depending on the floor(s) layout and use of space. Please submit an application with proposed posting locations for the department's review and approval.

## **Can this be done as part of another ongoing project on the site?**

No. Please submit a new AB 1882 signage application using eSP.

## **There are general acute care buildings without lobby or waiting areas, would posting still be required?**

If there is no lobby or waiting area, the department will review the location of the posting on a case-by-case basis. AB 1882 posting is not required for equipment yards, tunnels, canopies, cooling towers, or emergency generator enclosures.

# FAQs - AB1882 Signage

**Are these signs expected to be printed pieces of paper? What about signage to wall connection detail?**

There is no required material type for the signage. The signage should be protected from damage and securely adhered or hung on the wall.

**Is it sufficient to provide a general location, such as pointing to the approximate area on a floor plan, or does the exact location need to be specified?**

Pointing to the approximate area on a floor plan is acceptable. The installed signage is required to be verified and accepted by HCAI field staff.

**Will the HCAI regions be reviewing these AB 1882 projects, or will they go through the Seismic Compliance Unit?**

Review and approval will be done by the corresponding region or field staff.

# FAQs - AB1882 Signage

**Do we need to complete project kick-offs with the field staff? District Structural Engineer (DSE), Fire Life Safety Officer (FLSO), and Compliance Officer (CO)?**

No.

**Do we need an Inspector of Record (IOR), Testing Inspection Observation Program (TIO), or Verified Compliance Report (VCR) by the Design Professional of Record (DPOR)?**

No.

**Can the sign be moved at a later date?**

For revised location, please submit a new AB 1882 signage application using eSP.

**Is a version of the sign for the visually impaired required?**

Braille signage is not required.

**If the building SPC or NPC rating changes, would revised signage be required?**

Yes.

# FAQs - AB1882 Signage

## **Can the facility provide supplemental information to the posting?**

- No supplemental information on the posting will be allowed. However, additional informational postings around the signage that does not interfere with the AB 1882 signage posting is allowed.

## **The statement says no deviation from the notice format. Assuming that the format remains as is, can the statement be adjusted?**

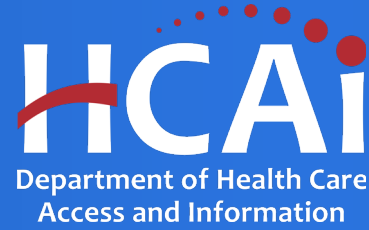
- The statement, the size, or the format cannot be revised.

# FAQs

- **What should be reported when the facility NPC / SPC ratings have “s” letters, such as SPC-5s, NPC-4s?**

“s” designation is a reported SPC/NPC rating to OSHPD, not an approved rating. This “s” designation typically indicates that there is some missing documentation that is required to be provided. Please contact SCU with steps to clear “s” designation.





Thank You!

Questions?  
Please email

[SeismicComplianceUnit@hcai.ca.gov](mailto:SeismicComplianceUnit@hcai.ca.gov)