



POLICY INTENT NOTICE

PIN: 74

SUBJECT

Skilled Nursing Facility (SNF) alternate source of power to maintain safe temperatures, maintain availability of life-saving equipment, and maintain oxygen-generating devices

Effective: 12/12/2022

Revised: 05/31/2024



PURPOSE

The purpose of this Policy Intent Notice (PIN) is to provide a policy for the implementation of alternate sources of power to maintain safe temperatures, maintain availability of life-saving equipment, and maintain oxygen-generating devices for Skilled Nursing Facility (SNF) buildings as mandated by Assembly Bill (AB) 2511 (Chapter 788, Statutes of 2022). Refer to [Advisory Guide A6-Alternate Source of Power for SNFs](#) for additional methods to comply with AB 2511.

BACKGROUND

SNFs have previously been required to provide 6 hours of onsite fuel storage for emergency power system sources such as emergency generators and have not been required to provide emergency power for cooling systems. AB 2511 requires that SNFs have an alternative source of power to protect resident health and safety for no fewer than 96 hours for power outages that may result from a public safety power shutoff, an emergency, a natural disaster, or other cause. An alternative source of power is defined as a source of electricity that is not received through an electric utility, but is generated or stored onsite, which may include, but is not limited to emergency generators using fuel, large capacity batteries, and renewable electrical generation facilities. The Centers for Medicare & Medicaid Services (CMS) may have additional certification requirements that will still need to be met by a SNF. These requirements are enforceable by the California Department of Public Health (CDPH) beginning on January 1, 2024.

AB 2511 amended Health and Safety Code (HSC) §1418 and added §1418.22:

- (a) *The Legislature finds and declares that it is the public policy of this state to ensure the health and safety of highly vulnerable persons residing in skilled nursing facilities during power outages that may result from a public safety power shutoff, an emergency, a natural disaster, or other cause.*
- (b)(1) *A skilled nursing facility shall have an alternative source of power to protect resident health and safety for no fewer than 96 hours during any type of power outage.*
 - (2) *For purposes of this section, “alternative source of power” means a source of electricity that is not received through an electric utility, but is generated or stored onsite, which may include but is not limited to emergency generators using fuel, large capacity batteries, and renewable electrical generation facilities.*
- (c) *For purposes of this section, “resident health and safety” includes, but is not limited to, maintaining a safe temperature for residents, maintaining availability of life-saving equipment, and maintaining availability of oxygen-generating devices.*

- (d) Facilities that use a generator as their alternative source of power shall maintain sufficient fuel onsite to maintain generator operation for no less than 96 hours or make arrangements for fuel delivery for an emergency event. If fuel is to be delivered during an emergency event, the facility shall ensure that fuel will be available with no delays.*
- (e) Facilities that use batteries or a combination of batteries in tandem with a renewable electrical generation facility as their alternative source of power, shall have sufficient storage or generation capacity to maintain operation for no fewer than 96 hours. Facilities shall also make arrangements for delivery of a generator and fuel in the event power is not restored within 96 hours and the generation capacity of the renewable electrical generation facility is unable provide sufficient power to comply with state requirements for long-term care facilities.*
- (f) A facility shall comply with the requirements of this section by January 1, 2024.*

POLICY

This PIN implements the requirements specified in HSC §1418.22. The Department of Health Care Access and Information (HCAI) will provide a technical basis from which a SNF can create a plan for identifying existing conditions that are already in compliance with the statute or to identify noncompliance and develop a construction project to achieve a compliant condition as required for acceptance by CDPH. The methods outlined and details described in this PIN indicate acceptable methods and details for achieving compliance with the law. These may be approved by HCAI in either the office or the field. Other methods proposed by the design professional of record to solve a particular problem shall be reviewed by HCAI and, if approved, may also be an acceptable solution.

DEFINITIONS/REQUIREMENTS

Acronyms and Definitions assist the user in recognizing and identifying various acronyms and terms generally used in this PIN. Please refer to the "[Master Glossary of Acronyms and Definitions – Acronyms and Definitions Used in OSHPD Published Documents](#)" which is posted on the HCAI website at <https://hcai.ca.gov/document/master-glossary-of-acronyms-and-definitions/>. Other definitions may also be found in the [California Building Standards Code](#), Title 24, California Code of Regulations.

Safe Temperature for Residents

"Comfortable temperature" under normal operating conditions: Title 22, California Code of Regulations, Section 72657, Mechanical Systems, requires that "heating, air conditioning and ventilation systems shall be maintained in normal operating conditions to provide a comfortable temperature and shall meet the requirements of Section T17-105, Title 24, California Administrative Code."

Table 4-A of Chapter 4 of the California Mechanical Code, Part 4 of Title 24, California Code of Regulations lists temperature range requirements for locations in the building based on use and function. Patient areas are required to have mechanical systems designed to maintain temperatures between 70°-75°F.

"Safe temperature" under emergency conditions: Federal Code of Regulations, Title 42, § 483.73(b)(1)(ii)(A) and § 483.10(i)(6) defines a safe temperature as a range of 71°F to 81°F. CMS

emergency preparedness requirements, states, "alternate sources of energy to maintain - Temperatures to protect resident health and safety and for the safe and sanitary storage of provisions."

Furthermore, CMS requires facilities to establish procedures that determine how heating and cooling of their facility will be maintained during an emergency, including when there is a loss of the primary power source. It is noted that facilities are not required to heat and cool the entire building evenly but must ensure safe temperatures are maintained in areas deemed necessary to protect patients, other persons and for stored provisions. These procedures are included in the Emergency Preparedness Plan pursuant to HSC § 1336.3(b) and made available to CDPH.

Life-saving Equipment

Life-saving equipment, where provided, shall have power provisions for a period of 96 hours from an alternate source of power. Life-saving equipment may include but shall not be limited to ventilators, AEDs, crash carts with defibrillators, intravenous therapy equipment, feeding pumps, IV pumps, nebulizer machines, suction equipment, and medication dispensing machines.

Oxygen-generating Devices

Oxygen-generating devices, where provided, shall have power provisions for a period of 96 hours from an alternate source of power. Oxygen-generating devices may include but shall not be limited to concentrators and positive pressure apparatus as identified in Title 22, California Code of Regulations, Section 51511.

ANALYSIS

Power Sources

Any new or existing onsite essential and alternate power source shall conform to one or more of the following requirements in the California Electrical Code, Part 3 of Title 24 of the California Code of Regulations.

- 1) Article 517, Sections 517.29 through 517.30 for SNF subacute units
- 2) Article 517, Sections 517.40 and 517.41 Essential Electrical Systems for Nursing Homes and Limited Care Facilities
- 3) Article 701 Legally Required Standby Systems
- 4) Article 705 Interconnected Electric Power Production Sources

Acceptable Outage Durations

- 1) Life-Saving Equipment and Oxygen Generating equipment will be required to be restored to back up power within 10 seconds of failure of normal power source.
- 2) Cooling and heating equipment will be restored to power within sufficient time to maintain temperature between 71°-81°F.

Minimum 96 Hours of Onsite Fuel Storage

Regardless of the resources used as an alternative source of power, sufficient fuel shall be maintained onsite to sustain operation for no less than 96 hours or have arrangements in place for fuel delivery during an emergency event. Fuel tank capacity shall meet the requirements of Section 5.5 of NFPA 110 to provide 133 percent of required capacity. If fuel is to be delivered during an emergency event, the facility shall ensure that fuel will be available with no delays. Onsite fuel storage shall not be less than 6 hours capacity in a minimum of one tank. For instance, where 96 hours of onsite fuel is not provided, CDPH must approve any alternate arrangements that have been made for the delivery of fuel to meet this requirement.

Special Seismic Certification

Special seismic certification (SSC) of new equipment is required for alternate sources of power serving life-safety components, such as emergency and standby power systems per Section 1705.14.3.1 of the California Building Code, Part 2, of Title 24 of the California Code of Regulations. A new healthcare microgrid configured to parallel with a normal distribution board permitted under a project prior to the July 1, 2024, Title 24 supplement will not require SSC. New healthcare microgrid installation projects submitted under the July 1st, 2024 Title 24 Supplement will require SSC per Section 517.1(B)(3) of the California Electrical Code. Heating, ventilation and air conditioning (HVAC) equipment will not be required to have SSC, except where required by Section 1705.14.3.1 of the California Building Code.

METHODS

Alternative Source of Power

This document does not require a specific solution to meet the AB 2511 requirements, but only requires that alternate power is provided to support HVAC equipment required to maintain safe temperatures, operate life-saving equipment and oxygen generating devices when present at the facility. The following three scenarios provide compliance options for existing SNFs to meet HSC §1418.22:

- 1) Add New Loads to Existing or Replacement Emergency Generator: Where an existing or replacement emergency generator that meets Article 517 Health Care Facilities, of the California Electrical Code, has adequate capacity to support the loads required and has sufficient fuel onsite (or 6 hours or more onsite with arrangements in place for more fuel) to maintain 96 hours of operation, the existing system could be considered compliant. If a replacement emergency generator and distribution equipment is provided to meet HSC § 1418.22 requirements, it will need to be SSC if permitted after July 1, 2024. The emergency generator(s) will need to have provisions for fuel sufficient to operate for 96 hours.
- 2) New or Additional Generator: A new alternate generator and associated equipment could be introduced into the system to feed new or additional loads necessary to meet HSC § 1418.22 requirements. The new generator and equipment shall meet Article 701 Legally Required Standby Systems, of the California Electrical Code, have SSC, and meet the fuel requirements for the 96 hours of operation. The new standby system in this scenario would feed the cooling equipment, life-saving equipment, and oxygen-generating devices as identified above. In this scenario, the existing distribution system would need to be modified to transfer all HSC § 1481.22

loads from existing equipment to new equipment. The existing emergency generator will need to have provisions for 96 hours of fuel to comply with Article 517 Health Care Facilities, of the California Electrical Code, life safety branch loads.

- 3) **New Healthcare Microgrid**: A new healthcare microgrid could be introduced to the system with any combination of generator(s), turbine(s), fuel cell(s), photovoltaics, battery storage system, or other onsite Distributed Energy Resources (DER's) and be configured to parallel with a normal distribution board at the facility. The new system components shall meet requirements of Article 705 Interconnected Electric Power Production Sources of the California Electrical Code and meet the fuel requirements for the 96 hours of operation. This approach would utilize the existing normal distribution system backed up by the alternate power source (microgrid) to feed all loads including the cooling equipment, life-saving equipment, and oxygen-generating devices. The existing Essential Electrical System (Section 517.42 of the California Electrical Code) will need to remain as is.

Onsite Source of Power Assessment

In order to show compliance with this law, SNFs shall submit an application for assessment of onsite sources of power under the provisions of HSC § 1418.22. Appendix A provides a Sample Assessment Form which can be used to identify items for inclusion in the assessment online application. The assessment application shall include existing conditions and identify the information required to prove compliance with HSC § 1418.22. When HCAI considers the assessment to be in compliance with this law, the assessment will be forwarded to CDPH for their review and approval. Once CDPH declares the facility is compliant, a letter will be issued to the facility.

Whether or not the facility is known to be non-compliant, the client may submit an initial assessment to assist in identifying deficiencies and propose modifications and/or additions to bring the facility into compliance with HSC § 1418.22. The application is online using the [eServices Portal](#) located on the HCAI website. Application submission user guide located at [SNF Assessment](#). An assessment will be reviewed by HCAI on assertions made regarding cooling requirements, presence or absence of lifesaving and oxygen generating equipment. HCAI will review and state either agreement or remark on assertions made. In addition, the client can propose remediation measures to bring the facility into code compliance and HCAI will provide feedback to the client on proposed solutions. This will serve as permanent record regarding the status of the facility, and whether the proposed solution is acceptable.

For this approach the accepted remediated work will need to be completed (new construction project) before a "final assessment" can be submitted to have the facility reviewed for concurrence with the law and be certified as compliant with HSC § 1418.22. Once construction projects(s) are closed in compliance, an assessment application shall be submitted electronically using the [eServices Portal](#) located on the HCAI website. As part of HCAI's charge from the Legislature, this reporting tool will be used by SNFs and HCAI to achieve the implementation goals of the statute.

Original signed	05/31/2024
Chris Tokas, Deputy Director	Date

APPENDIX

[OSHPD 2] HSC §1418.22 Facility Assessment Worksheet

Date:	
Facility ID:	
Facility Name:	
Building Number(s):	BLD-xxxxx
Licensed Beds (per building):	
Building Area(s) (SF):	

Heating System Information	
Heating System Type	
Fuel Type	
Cooling System Information	
Cooling System Type	
Power Source	
Emergency Generator	
Make	
Model	
Size (KVA and Voltage)	
Fuel Type	
Onsite Fuel Capacity (Hours)	
Onsite Fuel Storage Operating Hours	
Alternate Power Source	
Make	
Model	
Type	
Size (KVA and Voltage)	
Fuel Type	
Onsite Fuel Capacity (Hours)	
Onsite Fuel Storage Operating Hours	

Required for SNF Alternate Source of Power Assessment online application:

- Information shown in the Worksheet above.
- Floor Plan/Site Plan showing location of systems and area of coverage.
- Documentation substantiating compliance for all systems covered in HSC 1418.22.

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

Optional Documents:

- Proposed remediation for non-compliant systems.

SNF Alternate Power Source Assessment The following questions are part of the online assessment application. For reference only to assist you in gathering information for the online application.				
Section	Topic	Question Number	Question	Yes Or No
Safe Temperature for Residents Life-saving Equipment	Heating Equipment	1	Are there heating systems currently in place at the facility?	
		2	Does the existing heating system maintain the resident space at or above 71°F when utility power is reliable?	
		3	Is a floor plan showing existing heating units and area of coverage included in assessment submittal?	
		4	Is heating system equipment connected to emergency power?	
		5	Is the heating system equipment connected to an alternate power source (not emergency generator)?	
		6	Will the electrical components of heating system work in event of utility power outage?	
	Cooling Equipment	7	Is mechanical cooling provided at the facility?	
		8	Does the existing cooling system maintain the resident spaces at or below 81F when utility power is reliable?	
		9	Is a floor plan showing existing cooling units and area of coverage included in assessment submittal?	
		10	Is cooling system equipment connected to emergency power? (i.e., emergency generator)	
		11	Is the cooling system equipment connected to an alternate power source (not emergency generator)?	
		12	Will cooling system work in event of utility power outage?	

Continued...				
Section	Topic	Question Number	Question	Yes or No
Life-Saving Equipment	Ventilators	13	Are there ventilators using 120V for operation/charging at the facility?	
		13a	Are the ventilators connected to emergency power?	
		13b	Will the ventilators work in event of utility power outage?	
	AEDs	14	Are there automated external defibrillators (AED) using 120V for operation/charging at the facility?	
		14a	Are the AED connected to emergency power?	
		14b	Will the AED work in event of utility power outage?	
	Crash Carts	15	Are there crash carts using 120V for operation/charging at the facility?	
		15a	Are the crash carts connected to emergency power?	
		15b	Will the crash carts work in event of utility power outage?	
	Other Equipment	16	Are there other life-saving equipment at the facility?	
		16a	Are the other life-saving equipment connected to emergency power?	
		16b	Will the other life-saving equipment work in event of utility power outage?	
Oxygen-Generating Devices	Concentrators	17	Are there concentrators using 120V for operation/charging at the facility?	
		17a	Are the concentrators connected to emergency power?	
		17b	Will the concentrators work in event of utility power outage?	
	Positive Pressure Apparatus	18	Are there Positive Pressure Apparatus (PPA) using 120V for operation/charging at the facility?	
		18a	Are the PPA connected to emergency power?	
		18b	Will the PPA work in event of utility power outage?	
	Oxygen System	19	Does the facility utilize an onsite, large-scale oxygen-generating systems?	
		19a	Are the oxygen generation devices connected to emergency power?	
		19b	Will the oxygen generation devices work in event of utility power outage?	

Continued...				
Section	Topic	Question Number	Question	Yes or No
Existing Generator(s)	Emergency Generator(s)	20	Does your facility currently have a permanent onsite emergency generator?	
		20a	Does the emergency generator have 96 hours of onsite fuel storage?	
		20b	Does the emergency generator have a minimum of 6 hours of onsite fuel storage?	
		20c	Does the facility have a fuel delivery agreement to supply the generator(s) with fuel to comply with the 96 hours operational requirements of HSC 1418.22?	
Existing Alternate Power Source	Alternate Power Source (DER)	21	Does your facility currently have a permanent onsite alternate power source (not including emergency generator)?	
		21a	Does the alternate power source backup the entire normal service?	
		21b	Do all components of the alternate power source have special seismic certification?	
		21c	Does the alternate power source have 96 hours of onsite fuel storage?	
		21d	Does the alternate power source have a minimum of 6 hours of o-site fuel storage?	
		21e	Does the facility have a fuel delivery agreement to supply the alternate power source with fuel to comply with the 96 hours operational requirements of HSC 1418.22?	
Existing Systems	Equipment	22	Is an electrical single line diagram provided in submittal showing utility service, emergency and alternate power source(s) and distribution to HVAC equipment, life-saving equipment, and oxygen-generating device(s)?	

REVISION HISTORY

05-31-2024 Revisions:

Pointer added to the Advisory Guide A6.

Acronyms and Definitions point to the online Master Glossary.

Minimum 96 hours of onsite fuel storage is clarified to permit fuel delivery if 96 hours fuel is not available onsite.

Special Seismic Certification section edited to clarify California Building Code sections.

Alternative Source of Power section updated removing duplicative language and provide clarity to the three scenarios.

The Onsite Source of Power Assessment section edited to clarify HCAI will review the assessment for compliance with HSC § 1418.22 and send the assessment to CDPH. CDPH will review and approve the assessment at which time a letter will be sent to the facility. Additionally, the section explains the assessment is required, and an initial assessment may be submitted to assist the facility to identify deficiencies and propose modifications and/or additions to bring the facility into compliance.

11-16-2023 First Revised

12-12-2022 First Issued