

CHAPTER 5D

ELECTRICAL CODE*

*** Editor's Notes:**

1. Pursuant to section 107-28, Hawai'i Revised Statutes ("HRS"), each County shall amend and adopt the Hawai'i State building codes and standards listed in HRS, section 107-25 within two years after adoption by the State Building Code council. If a County does not amend, adopt, and update a State code within this time frame, the respective State code shall become applicable as an interim County code.
2. Chapter 9, "electrical code," was repealed by ordinance 20-61, section 12, and replaced with chapter 5D.

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2. Chapter 9, "electrical code," was repealed by ordinance 20-61, section 12, and replaced with chapter 5D.

Article 1. General Provisions.**Section 5D-1-1. Title.**

This chapter shall be known as the "electrical code."
(2020, ord 20-61, sec 4.)

Section 5D-1-2. Purpose.

The purpose of this chapter is to reduce the hazards to persons and property from electrical causes by establishing minimum standards for electrical installations in the County.
(2020, ord 20-61, sec 4.)

Section 5D-1-3. Scope; exceptions.

This chapter shall apply to electrical installations within the County inland of the shoreline high-water line.

This chapter shall not apply to work or installations not covered by the National Electrical Code, 2017 Edition, as adopted by chapter 5D, this electrical code.
(2020, ord 20-61, sec 4; am 2021, ord 21-61, sec 20.)

Section 5D-1-4. Administrative provisions.

Provisions relating to permitting, enforcement, inspection, and other administrative procedures pertaining to this chapter are contained in chapter 5, the construction administrative code.
(2020, ord 20-61, sec 4.)

Section 5D-1-5. Existing electrical installations.

Electrical installations in existence and permitted pursuant to applicable laws and standards in effect when the electrical work thereon was performed, shall not be deemed to be in violation of subsequent changes to applicable laws or standards, provided that such installations shall be subject to the provisions of section 5-2-3 of the construction administrative code.
(2020, ord 20-61, sec 4.)

Section 5D-1-6. Definitions.

As used in this chapter, unless it is apparent from the context that a different meaning is intended:

“Article” means an article of a chapter of the National Electrical Code.

“Authority having jurisdiction” means the director of the department of public works, or the director's authorized representative.

“Building Official” means the director of the department of public works, or the director's authorized representative.

“Chapter” means chapter 5D, the electrical code, or chapter 5, the construction administrative code, or both, as the context requires.

“This code” means the electrical code, contained in chapter 5D, or the construction administrative code, contained in chapter 5, or both, as the context requires.

“Dwelling” Any building that contains one or two dwelling units used, intended, or designed to be built, used, rented, leased, let or hired out to be occupied, or that are occupied for living purposes.

“Dwelling unit” A single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.

“Electrical wiring” means any conduit, raceway, manhole, handhole, conductor, material, device, fitting, apparatus, appliance, fixture, or equipment constituting a part of or connected to any electrical installation, attached or fastened to any building, structure, or premises and which installation or portion thereof is designed, intended, or used to generate, transmit, transform, or utilize electrical energy within the scope and purpose of the National Electrical Code.

“Electrical work” means the installation, alteration, reconstruction, or repair of electrical wiring.

“Inundation level” means the maximum expected water level due to flooding by rainfall runoff, wind, waves, and tsunamis as established by the authority having jurisdiction.

“NEC” means the National Electrical Code, NFPA 70, 2017 Edition, published by the National Fire Protection Association.

“NFPA” means the National Fire Protection Association.

“Permit” means a formal authorization issued by the authority having jurisdiction that authorizes performance of specified work, pursuant to the construction code, including the following chapters and all administrative rules adopted pursuant to the following chapters:

- (1) 5, the construction administrative code;
- (2) 5A, the building code;
- (3) 5B, the residential building code;
- (4) 5C, the existing building code;
- (5) 5D, the electrical code;
- (6) 5E, the energy conservation code; and
- (7) 5F, the plumbing code.

“Person” means any individual, firm, partnership, association, or corporation; or its or their successors or assigns, according to the context thereof.

“Portable appliances” means any cord/plug connected device that is readily moveable.

“Qualified person” a person holding a valid, unexpired, and unrevoked journey worker electrician, journey worker specialty electrician, supervising electrician, or supervising specialty electrician license under chapter 448E, Hawai‘i Revised Statutes, and who has skills and knowledge related to the construction and operation of the electrical equipment and installations and has received safety training to recognize and avoid the hazards involved.

(2020, ord 20-61, sec 4; am 2021, ord, 21-61, sec 21.)

Section 5D-1-7. Compliance required.

- (a) No person shall perform or cause to be performed any electrical work which does not comply with the provisions of this code or any permit issued pursuant to this code.
- (b) No person shall perform any work covered by this code in violation of the provisions of chapter 448E, Hawai‘i Revised Statutes.
- (c) Any approval or permit issued pursuant to the provisions of this code shall comply with all applicable requirements of this code.
- (d) The granting of a permit, variance, or approval of plans or specifications pursuant to this code does not dispense with the necessity to comply with any applicable law to which a permit holder may also be subject.

(2020, ord 20-61, sec 4.)

Section 5D-1-8. Conflict.

- (a) If any provisions of this code conflict with or contravene provisions of the Hawai‘i State Electrical Code or the National Electrical Code that have been incorporated by reference, the provisions of this code shall prevail as to all matters and questions arising out of the subject matter of such provisions.
- (b) In situations where two or more provisions of this code and any applicable law, other than those provided for in subsection (a), cover the same subject matter, the stricter shall be complied with.

(2020, ord 20-61, sec 4.)

Article 2. Installation Requirements.

Section 5D-2-1. National electrical code adopted.

- (a) The National Electrical Code, 2017 Edition, published by the National Fire Protection Association, One Batterymarch Park, Quincy MA, 02169-7471, including appendices, is incorporated by reference and made a part of this code, subject to any amendments hereinafter set forth in this chapter.
- (b) The scope, technical specifications, and exemptions set forth in the National Electrical Code, 2017 Edition, are hereby adopted as the standard for electrical work covered by this code, provided there are no specific provisions in any other section of this code covering the particular matter.
- (c) A copy of the National Electrical Code, 2017 Edition, shall be available for public inspection at the Hilo and Kailua-Kona offices of the department of public works and at the office of the County clerk.

(2020, ord 20-61, sec 4.)

Article 3. Electrical Work Within Special Flood Hazard Areas.**Section 5D-3-1. General applicability.**

- (a) The provisions of this article shall apply to the: installation of any new electrical system; or the renovation and major alteration, addition, or reinstallation of any existing electrical system, within a special flood hazard area as identified by chapter 27, Hawai'i County Code. All installations shall comply with chapter 27, Floodplain Management.
- (b) The provisions of this article shall not apply to the following:
- (1) Any electrical system serving a building or structure exempted from chapter 27;
 - (2) Any electrical system serving a building or structure which has been granted a flood control variance pursuant to article 5, chapter 27; or
 - (3) Any electrical system lawfully existing prior to November 8, 1993, subject to the provisions of chapter 27.

(2020, ord 20-61, sec 4.)

Section 5D-3-2. Definitions.

As used in this article, unless it is apparent from the context that a different meaning is intended:

“Base flood elevation” means the water surface elevation of the base flood.

“Flood or flooding” means:

- (1) A general and temporary condition of partial or complete inundation of normally dry land areas from:
 - (A) The overflow of inland or tidal waters;
 - (B) The unusual and rapid accumulation or runoff of surface waters from any source; or
 - (C) Mudslides (i.e., mudflows) which are approximately caused by flooding as defined in paragraph (1)(B) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current; or
- (2) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph (1)(A) of this definition.

“Special flood hazard area” means an area having special flood or flood-related erosion hazards, and shown on the Flood Insurance Rate Maps as Zones A, AO, AE, A99, AH, VE, or V.

“Water-tight” when referring to construction below the inundation level, means constructed to exclude moisture and withstand the hydraulic pressure resulting from the anticipated depth of inundation.

(2020, ord 20-61, sec 4.)

Section 5D-3-3. General Requirements.

Contractor will provide a certified flood zone elevation mark on jobsite for flood zone elevation reference point.

(2020, ord 20-61, sec 4.)

Section 5D-3-4. Services.

- (1) Location. Service equipment shall be located above the inundation level, or where permitted per chapter 27, shall be installed in a water-tight enclosure, room, or vault, and shall be readily accessible in any case.
- (2) Ground Fault Protection. Ground fault protection shall be provided for all grounded wye electrical services.

(2020, ord 20-61, sec 4.)

Section 5D-3-5. Ground fault protection.

Approved ground fault circuit protection shall be provided for all feeder and branch circuits below or extending into inundation level.

(2020, ord 20-61, sec 4.)

Section 5D-3-6. Wiring method and material.

Equipment such as transformers, fuses, panelboards, switchboards, disconnects, circuit breakers, controllers and other devices used for control, disconnecting means, ground fault protection, or overcurrent protection shall be located above the inundation level, unless made of water-tight construction and permitted per chapter 27.

(2020, ord 20-61, sec 4.)