

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
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Recreational Vehicles and Recreational Vehicle Parks

Code: 2017 Electrical Code
Section: Article 551

Date: January 1, 2019

Question 1:

What sections of Article 551 are not enforced by the local electrical inspector in North Carolina?

Answer 1:

All of Parts II, III, IV, and V of Article 551.

Parts II, III, IV, and V of Article 551 regulate the electrical conductors and equipment installed within or on recreational vehicles. The State Electrical Division considers camping trailers, motor homes, recreational vehicles, travel trailers, and truck campers as described in Part I of Article 551 of the 2017 NEC, as also meeting the definitions of the same names as described in Article 1 of Chapter 20 in North Carolina General Statutes establishing the Division of Motor Vehicles.

Before the State Electrical Code can regulate an electrical installation, the Code must first have jurisdiction over the installation. In North Carolina, the State Electrical Code does not possess the authority to regulate the electrical wiring of vehicles, including recreational vehicles as defined in N.C. Gen. Stat. § 20-4.01(32b). The Division of Motor Vehicles of the Department of Transportation is the exclusive agency that enforces the regulations pertaining to vehicles including a vehicle's construction standards.

Question 2:

When remodeling a recreational vehicle, is the addition, modification, repair, or replacement to a component of the manufacturer's original electrical design subjected to any provisions of Article 551.

Answer 2:

No.

As stated above in "Answer 1", the State Electrical Code does not possess the authority to regulate the electrical wiring or any alterations of the manufacturer's original electrical design of vehicles, including recreational vehicles.

Question 3:

Are Part I and VI of Article 551 enforced by the local electrical inspector in North Carolina?

Answer 3:

Yes.

Parts I or VI of Article 551 are concerned with the external environment and listed and labeled electrical equipment within a recreational vehicle park. Neither Parts I or VI of Article 551 have sections that regulate the construction and design of a recreational vehicle itself. Therefore, Parts I or VI of Article 551 are regulated by the State Electrical Code and enforced by the local electrical inspector.

Question 4:

Can a recreational vehicle not regulated by the State Electrical Code be hard wired by a permanent feeder or branch circuit to an electrical system that is regulated by the State Electrical Code?

Answer 4:

No.

If a recreational vehicle becomes a permanent structure and is no longer a vehicle, then the construction provisions of the permanent structure must be permitted, inspected, and comply with all the State Building Codes or be regulated by the NC Manufactured Building Division.

For the State Electrical Division to consider an apparatus a vehicle and not a permanent structure, the apparatus must maintain a standard of mobility. The State Electrical Division considers an apparatus as mobile when such apparatus can connect or disconnect from an external electrical supply system without engaging in the installation or alteration of any electric work, wiring, devices, appliances or equipment that is regulated by the State Electrical Code. Therefore, a vehicle that is not regulated by the State Electrical Code can only physically connect to an external electrical supply system that is regulated by the State Electrical Code by an accessible cord-and-plug.

2017 State Electrical Code (NEC)

Article 551

Recreational Vehicles and Recreational Vehicle Parks

551.2 Definitions. (See Article 100 for additional definitions.)

Recreational Vehicle. A vehicular-type unit primarily designed as temporary living quarters for recreational, camping, or travel use, which either has its own motive power or is mounted on or drawn by another vehicle.

North Carolina General Statutes
Chapter 20.
Motor Vehicles.

Article 1.

Division of Motor Vehicles.

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§ 20-4.01. Definitions.

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(32b) Recreational Vehicle. – A vehicular type unit primarily designed as temporary living quarters for recreational, camping, or travel use that either has its own motive power or is mounted on, or towed by, another vehicle. The basic entities are camping trailer, fifth-wheel travel trailer, motor home, travel trailer, and truck camper. This term shall not include a manufactured home as defined in G.S. 143-143.9(6). The basic entities are defined as follows:

G.S. 20-4.01 Page 10

- a. Camping trailer. – A vehicular portable unit mounted on wheels and constructed with collapsible partial side walls that fold for towing by another vehicle and unfold at the campsite to provide temporary living quarters for recreational, camping, or travel use.
- b. Fifth-wheel trailer. – A vehicular unit mounted on wheels designed to provide temporary living quarters for recreational, camping, or travel use, of a size and weight that does not require a special highway movement permit and designed to be towed by a motorized vehicle that contains a towing mechanism that is mounted above or forward of the tow vehicle's rear axle.
- c. Motor home. – As defined in G.S. 20-4.01(27)k.
- d. Travel trailer. – A vehicular unit mounted on wheels, designed to provide temporary living quarters for recreational, camping, or travel use, and of a size or weight that does not require a special highway movement permit when towed by a motorized vehicle.
- e. Truck camper. – A portable unit that is constructed to provide temporary living quarters for recreational, camping, or travel use, consisting of a roof, floor, and sides and is designed to be loaded onto and unloaded from the bed of a pickup truck.