NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
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919-647-0001

Sunroom Requirements

Code: 2017 Electrical Code **Date:** December 16, 2020
Sections: 210.52(A) & 210.12(A)

Question 1:

When a sunroom is created using vinyl film or glass windows to enclose a covered porch, are the receptacle spacing requirements of section 210.52(A) and arc fault protection requirements of section 210.12(A) required?

Answer 1:

> **210.52 Dwelling Unit Receptacle Outlets.** This section provides requirements for 125-volt, 15- and 20-ampere receptacle outlets. . . .
>
> **(A) General Provisions.** In every kitchen, family room, dining room, living room, parlor, library, den, sunroom, bedroom, recreation room, or similar room or area of dwelling units, receptacle outlets shall be installed in accordance with the general provisions specified in 210.52(A)(1) through (A)(4).
>
> **210.12 Arc-Fault Circuit-Interrupter Protection.** Arc-fault circuit-interrupter protection shall be provided as required in 210.12(A), (B), (C), and (D). The arc-fault circuit interrupter shall be installed in an accessible location.
>
> **(A) Dwelling Units.** All 120-volt, single-phase, 15- and 20-ampere branch circuits supplying outlets or devices installed in dwelling unit family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas shall be protected by any of the means described in 210.12(A)(1) through (6):

According to the 2017 State Electrical Code, any room or area defined as or similar to a sunroom shall meet the provisions described in section 210.52(A) for receptacle spacing and section 210.12(A) for arc-fault circuit-interrupter (AFCI) protection. Sunrooms share the requirements of sections 210.52(A) and 210.12(A) with other rooms that share similar electrical needs. Sunrooms, living rooms, bedrooms, dining rooms, etc. have similar receptacle spacing

requirements because the Code expects the user of the electrical system to utilize receptacle outlets for similar equipment, such as vacuum cleaners, table lamps, phone chargers, televisions, etc.

Therefore, the 2017 State Electrical Code requires a sunroom that is created by using vinyl film or glass windows to enclose a covered porch comply with the provisions described in section 210.52(A) for receptacle spacing and section 210.12(A) for arc-fault circuit-interrupter (AFCI) protection.

Question 2:

If homeowners are instructed by manufacturer's instructions to remove the window panels if wind speeds are expected to exceed 65 MPH would the receptacles in such sunroom then be required to have GFCI protection?

Answer 2:

Section 210.8(A) requires that 125-volt, single-phase, 15- and 20-ampere receptacles possess GFCI protection when such receptacles are located outdoors but not when such receptacles are located in sunrooms. "A location classified as dry may be temporarily subject to dampness or wetness, as in the case of a building under construction." See Article 100, Location, Dry.

Removal of the transparent panels for storm preparation does not redefine the room as outdoors because such temporary alteration does not change the intent of the room from being normally utilized as a sunroom. A living room with large French-style doors that encompass an exterior wall and that can be left open has no merit to reclassify the location of the living room receptacles as outdoor receptacles. The outdoors is generally considered a damp or wet location in accordance with their respective definitions in Article 100, but never a dry location. In accordance with the electrical code's definition of a dry location, the Code recognizes that parts of the electrical system may sustain moisture during abnormal events without diminishing the approval of the system as dry.

Receptacles in a sunroom enclosed by vinyl film windows are not required by the State Electrical Code to possess GFCI protection even if the sunroom's manufacturer instructions recommend removal of the panels in a high wind event.

Example:

https://ezebreezehome.com/porches/