

Declaratory Statement DS 2020-059

Petitioner Mark Wesson, President of Wesson Air, Inc. seeks a Declaratory Statement clarifying the requirement of programmable thermostats in the Seventh Edition (2020) Florida Building Code, Energy Conservation.

Petitioner seeks clarification of the following questions:

1. As a Residential <3 stories with a HVAC change out less than 30% of the assessed value of the structure, would this be an alteration governed by the “Existing Building” code?
2. When replacing a HVAC system in this residence are we governed by the FBC Energy Conservation code or does R101.4.2 apply?
3. When replacing the thermostat as part of the change-out in this residence, is the thermostat required to be programmable?

Background:

Wesson Air, Inc. is a Central Florida Air Conditioning contractor in the business of many forms of air conditioning. As a portion of their business, they replace existing home air conditioning systems and with a typical system change-out, they replace the thermostat with a programmable model.

For a few of their customers this is a hardship as they are not comfortable with the complexity of a programmable thermostat and they are home all day and do not wish to change temperatures. For these customers they would like to install non-programmable thermostats.

Specifically, Wesson Air is seeking clarification on FBC Energy Conservation R101.4.2 and does this code section exempt use of Energy Conservation code for an alteration in an existing building or residence.

The standard project referenced is a condo/apartment/townhouse in a two-three story multi-family residence. The change out would average \$6000 and would be less than 30% of the value of the residence.

7th Edition (2020) Florida Building Code, Energy Conservation (Residential Provisions)

R101.4.2 Exempt buildings.

Buildings exempt from the provisions of the Florida Building Code, Energy Conservation, include existing buildings except those considered renovated buildings, changes of occupancy type or previously unconditioned buildings to which comfort conditioning is added. Exempt buildings include those specified in Sections R101.4.2.1 through R101.4.2.4.

R101.4.2.1 Federal standards. Any building for which federal mandatory standards preempt state energy codes.

R101.4.2.2 Hunting or recreational buildings < 1,000 square feet. Any building of less than 1,000 square feet (93 m²) whose primary use is not as a principal residence and which is constructed and

owned by a natural person for hunting or similar recreational purposes is exempt from this code; however, no such person may build more than one exempt building in any 12-month period.

R101.4.2.3 Historic buildings. Any building meeting the criteria for historic buildings as defined in Chapter 2 of this Code.

R101.4.2.4 Low-energy buildings as described in Section R402.1. Such buildings shall not contain electrical, plumbing or mechanical systems that have been designed to accommodate the future installation of heating or cooling equipment.

Section R202 - General Definitions

THERMOSTAT. An automatic control device used to maintain temperature at a fixed or adjustable set point.

RENOVATED BUILDING. A residential or nonresidential building undergoing alteration that varies or changes insulation, HVAC systems, water heating systems or exterior envelope conditions, provided the estimated cost of renovation exceeds 30 percent of the assessed value of the structure.

Section R403 - Systems

R403.1 Controls.

R403.1.1 Thermostat provision (Mandatory). At least one thermostat shall be provided for each separate heating and cooling system.

R403.1.2 Programmable thermostat (Prescriptive). The thermostat controlling the primary heating or cooling system of the dwelling unit shall be capable of controlling the heating and cooling system on a daily schedule to maintain different temperature set points at different times of the day. This thermostat shall include the capability to set back or temporarily operate the system to maintain zone temperatures down to 55°F (13°C) or up to 85°F (29°C). The thermostat shall initially be programmed by the manufacturer with a heating temperature set point no higher than 70°F (21°C) and a cooling temperature set point no lower than 78°F (26°C).

Section R501 - General

R501.1 Scope. The provisions of this chapter shall control the alteration, repair, addition and change of occupancy of existing buildings and structures.

R501.1.1 Additions, alterations, or repairs: General.

Additions, alterations, or repairs to an existing building, building system or portion thereof shall comply with Section R502, R503 or R504. Unaltered portions of the existing building or building supply system shall not be required to comply with this code.

R501.2 Existing buildings. Except as specified in this chapter, this code shall not be used to require the removal, alteration or abandonment of, nor prevent the continued use and maintenance of, an existing building or building system lawfully in existence at the time of adoption of this code.

7th Edition (2020) Florida Building Code (FBC), Existing Building

[A] 101.4 Applicability. This code shall apply to the *repair, alteration, change of occupancy, addition* and relocation of *existing buildings*, regardless of occupancy, subject to the criteria of Sections 101.4.1 and 101.4.2.

Staff Analysis

Question #1: As a Residential <3 stories with a HVAC change out less than 30% of the assessed value of the structure, would this be an alteration governed by the “Existing Building” code?

Answer: The answer to the Petitioner’s question is yes. As per Section 101.4 Applicability of the 7th Edition (2020) Florida Building Code, Existing Building, alteration “i.e. HVAC change out” falls within the scope of the FBC, Existing Building.

Question #2: When replacing a HVAC system in this residence are we governed by the FBC Energy Conservation code or does R101.4.2 apply?

Answer: The alteration in question is governed by Section R101.4.2 of the 7th Edition (2020) FBC, Energy Conservation (the Code) and therefore compliance with the Code is not required.

Question #3: When replacing the thermostat as part of the change-out in this residence, is the thermostat required to be programmable?

Answer: The answer to the Petitioner’s question is no. As per Section R101.4.2 and the definition of “Renovated Building” of the 7th Edition (2020) FBC, Energy Conservation (the Code), the project in question including the thermostat is exempt from compliance with the Code.