

USF TAMPA HVAC REPLACEMENT REQUIREMENTS SUMMARY

BCA DIRECTIVE -- 09

INDEX	SECTIONS	TITLE
	SECTION A	PURPOSE
	SECTION B	REQUIREMENTS
	SECTION C	REFERENCE

A PURPOSE:
This **BCA Directive** promulgates summary of code requirements for HVAC replacement equipment in 2014 FPC and 5th Edition of the Florida Building Code.

- B REQUIREMENTS:**
1. **Define the level of alteration or work proposed.** Repair is on existing equipment and not the replacement of such. Replacing an AHU or components of an HVAC system is not a repair.
 2. Replacement of Existing AHU or HVAC equipment whether level 1, 2 or 3 shall meet the requirements of the FBCEC.
 3. **The use of the FLA-COM or equivalent program is unnecessary and not desired.** The Engineer shall provide the Florida specific information (see FBCEC C403.2.1 Exception) as well as the occupant load verification of the area served by equipment being replaced.
 4. **Occupant load for USF:**
 - a. Classrooms: **15 sq.ft. per person.**
 - b. Lecture Classroom in Mechanical code (65/1000 sq.ft.): **15sq.ft. per person.**
 - c. Auditoriums fixed seats (150/1000 sq.ft.): **7 sq.ft. per person.**
 5. **Verification required for any changed or added loads** that would affect the heat load of the space or ventilation required. Spaces should be assessed by current use consistent with the altered or modified spaces not the original room configurations only. Provide list of spaces served if not complete floor plan and the occupancy and use of each space.
 6. As the legislature has required USF to reduce energy in existing buildings the accounting for any energy saving measures via control systems and or equipment replacement should be noted to provide for verification of the efforts to reduce energy use as well as code compliance.

- C. REFERENCE**
- FBC EXISTING BUILDING CODE:**
- REPAIRS:**
608.1 **General.** Existing mechanical systems undergoing *repair* shall not make the building less conforming than it was before the **repair** was undertaken.
- LEVEL 1 ALTERATION:**
707.1 **Minimum requirements.** Alteration subject to this chapter shall comply with the requirements of the **Florida Building Code, Energy Conservation.**
- LEVEL 2 ALTERATION:**
504.1 **Scope.** Level 2 alterations include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment.
809.1 **Reconfigured or converted spaces.** All reconfigured spaces intended for occupancy and all spaces converted to habitable or occupiable space in any *work area* shall be provided with natural or mechanical ventilation in accordance with the **Florida Building Code, Mechanical.**
Exception: Existing mechanical ventilation systems shall comply with the requirements of **Section 809.2.**
809.2 **Altered existing systems.** In mechanically ventilated spaces, existing mechanical ventilation systems that are altered, **reconfigured, or extended shall provide not less than 5 cubic feet per minute (cfm) (0.0024 m3/s) per person** of outdoor air and not less than 15 cfm (0.0071 m3/s) of ventilation air per person; or not less than the amount of ventilation air determined by the Indoor **Air Quality Procedure of ASHRAE 62.**

809.3 Local exhaust. All newly introduced devices, equipment, or operations that produce airborne particulate matter, odors, fumes, vapor, combustion products, gaseous contaminants, pathogenic and allergenic organisms, and microbial contaminants in such quantities as to affect adversely or impair health or cause discomfort to occupants shall be provided with local exhaust.

811.1 Minimum requirements. Alterations subject to this Chapter shall comply with the requirements of the [Florida Building Code, Energy Conservation](#).

LEVEL 3 ALTERATION:

505.1 Scope. Level 3 *alterations* apply where the *work area* exceeds 50 percent of the aggregate area of the building.

908.1 Minimum requirements. Alterations subject to this chapter shall comply with the requirements of the [Florida Building Code, Energy Conservation](#).

CHANGE OF OCCUPANCY:

1009.1 Mechanical requirements. Where the occupancy of an *existing building* or part of an *existing building* is changed such that the new occupancy is subject to different kitchen exhaust requirements or to [increased mechanical ventilation](#) requirements in accordance with the [Florida Building Code, Mechanical](#), the new occupancy shall comply with the intent of the respective [Florida Building Code, Mechanical](#) provisions.

FBC ENERGY CODE:

C403.2.1:

Exception: Where mechanical systems are designed by a registered engineer, the engineer has the option of submitting a signed and sealed summary sheet to the building department in lieu of the complete sizing calculation(s). Such summary sheet shall include the following (by zone):

1. Project name/owner
2. Project address
3. Area in square feet
4. Sizing method used
5. Outdoor dry bulb use
6. Indoor dry bulb
7. Outdoor wet bulb used
8. Grains water (difference)
9. Total sensible gain
10. Total latent gain
11. Relative humidity
12. Total cooling required with outside air
13. Total heating required with outside air