



Informal Interpretation Report Number 8624



Date February 18, 2022

Edition 2021

Section 602.2.1 Materials within plenums

Question:

The Florida Mechanical Code 2020 and Florida Building code 2020 defines what items maybe in plenums and if the materials in plenums must comply when installed within plenums see code section's 602.2.1, 602.2 construction, 602.1 General. The Florida Mechanical Code 2020 defines what areas can be used for return air plenums, the area in question is a return air closet which contains an AHU and pulls air into closet and supplies it to the conditioned area being served which in 601.5 Return air openings #7 Return air shall not be taken from a closet. Florida Energy Code 2020 defines AHU closet as a plenum see Florida Energy Code 2020 Section 403.2.9 Duct Construction. The AHU closet is considered to be a duct or plenum chambers and must comply with sections C403.2.9.2 and with chapter 6 of Florida Building Code, Mechanical. The Florida Building Code Section 703.5 defines what materials that can be within plenums, so my contention is it does fall in the realm of return air plenum as defined in 602 Plenums but since it is considered a duct or plenum chamber per Florida Energy Code that the ahu closet must comply with the materials within plenums in 602.2.1 Florida Mechanical Code 2020. I have included a pdf concerning this subject from the ICC commentary which can't be used for enforcement of code but for guidance only. It is my contention if it is not a plenum then closet can't be used for return air. Thanks for considering this issue, the code also defines that a plenum can only serve one fire area. The code on this subject is referring to the area the AHU serves and not beyond.

Answer:

Yes, closets can be used as return air plenums.

The 7th Edition, Florida Mechanical Code, definition of a PLENUM: An enclosed portion of the building structure, other than an occupiable space being conditioned, that is designed to allow air movement, and thereby serve as part of an air distribution system.

The 7th Edition, Florida Mechanical Code, Section 602 requires that materials exposed in a plenum must comply with 25 fire/50 smoke ratings when tested in accordance with ASTM E84. This same Section allows for the use of gypsum board to form plenums, as long as the air temperature does not exceed 125 F, the gypsum board surface temperature be maintained above dew-point temperature and not be incorporated in A/H systems utilizing evaporative coolers.

The 7th Edition, 2020 Florida Energy Conservation Code, Section, C403.2.9.1.1, Insulation required. All supply, return and plenums must be insulated. However, when the supply, return or plenum is located in the conditioned or indirectly conditioned space Table C403.2.9.1 does not require any insulation.

On 02/18/2022 at 7:35 AM

Commentary:

None.

Notice:

The Building Officials Association of Florida, in cooperation with the Florida Building Commission, the Florida Department of Business & Professional Regulation, ICC, and industry and professional experts offer this interpretation of the Florida Building Code in the interest of consistency in their application statewide. This interpretation is informal, non-binding and subject to acceptance and approval by the local building official.