

The industry wide confusion regarding the definition of a *plenum space* verses an *air handling space* is very common as the area above a drop ceiling is mistakenly referred to as a plenum. Simply stated, the *NEC* defines a *plenum area* as, "a compartment or chamber to which one or more air ducts are connected and that forms part of the air distribution system." They also reference, "the space over a hung ceiling used for environmental air-handling purposes," and, "areas beneath raised floors for information technology equipment," as *air handling space* (*NEC* pg. 70-135 and 70-136). Often, the *NEC* definition of these terms differs from their common use in the industry – however, UL is compatible with the *NEC* terms and definitions. Therefore, the space above a hung (or drop/suspended) ceiling utilized as an air return to the HVAC unit is considered an air handling space. Additionally, the area below a raised floor used to supply conditioned air is also considered an air handling space.

National Electrical Code® 2008 Edition Article 300.22 (C) and (D) Pages 70-135 and 70-136

(C) Other Space Used for Environmental Air. This section applies to space used for environmental air-handling purposes other than ducts and plenums as specified in 300.22 (A) and (B). It does not include habitable rooms or areas of buildings, the prime purpose of which is not air handling.

FPN: The space over a hung ceiling used for environmental air-handling purposes is an example of the type of other space to which this section applies.

Exception: This section shall not apply to the joist or stud spaces of dwelling units where the wiring passes through such spaces perpendicular to the long dimension of such spaces.

- (1) Wiring Methods. The wiring methods for such other space shall be limited to totally enclosed, nonventilated, insulated busway having no provisions for plug-in connections, Type MI cable, Type MC cable without an overall nonmetallic covering, Type AC cable, or other factory-assembled multiconductor control or power cable that is specifically listed for the use, or listed prefabricated cable assemblies of metallic manufactured wiring systems without nonmetallic sheath. Other types of cables and conductors, and raceways shall be permitted to be installed in electrical metallic tubing, flexible metallic tubing, intermediate metal conduit, rigid metal conduit without an overall nonmetallic covering, flexible metal conduit, or, where accessible, surface metal raceway or metal wireway with metal covers or solid bottom metal cable tray with solid metal covers.
- (2) Equipment. Electrical equipment with a metal enclosure, or with a nonmetallic enclosure listed for the use and having adequate fire-resistant and low-smoke-producing characteristics, and associated wiring material suitable for the ambient temperature shall be permitted to be installed in such other space unless prohibited elsewhere in this *Code*.

Exception: Integral fan systems shall be permitted where specifically identified for such use.

(D) Information Technology Equipment. Electric wiring in air-handling areas beneath raised floors for information technology equipment shall be permitted in accordance with Article 645.



Milestone AV Technologies Chief Products Division 8401 Eagle Creek Parkway Savage, MN 55378 P 800.582.6480 | 952.894.6280 F 877.894.6918 | 952.894.6918 www.milestone.com