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***Development Review Services***  
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## **Information Technology Rooms**

### **Background:**

The purpose of this Bulletin is to provide a guideline for determining:

- What constitutes an Information Technology Room,
- What specific requirements apply to Information Technology Rooms and
- What the submittal requirements are for permit applications with reference to California Electrical Code, Article 645 and NFPA 75, 2017 Edition, Chapter 1.

### **Action:**

An Information Technology Room may also be known as an Electronic Computer Data Processing Room. The electrical code allows alternate methods for installation of electrical systems in an Information Technology Room. When alternate installation methods are used specific wiring methods, fire-resistive construction, and HVAC controls must be installed. These requirements mitigate hazards caused by the alternate power distribution methods or by the equipment in the Information Technology Room.

### **An Information Technology Room is created:**

- when labeled on plans and permits
- by the general nature of their construction
- by the installation of certain types of equipment
- by use of various electrical installation and connection methods
- when electronic equipment and wiring is installed that does not conform to the standard requirements of Chapter 3 Wiring Methods and Materials, and Chapter 4 Equipment for General Use of the California Electrical Code
- when power cord wiring is installed under raised-floor areas
- when utilization equipment requires power cord wiring in excess of six feet in length
- when freestanding equipment racks containing electrical utilization equipment are not provided with outlets installed with wiring methods from CEC Chapter 3

However a room with one of the following installed between a premises wiring system receptacle and utilization equipment is not required to be labeled an information technology room:

- cord and plug connected relocatable power tap
- surge suppressor
- uninterrupted power supply or
- similar equipment used in accordance with the terms of its listing

### **When an Information Technology Room is created the designer must specify the following provisions of CEC Article 645:**

- An emergency shut-off means to disconnect power to all electronic equipment and HVAC equipment in the room, to disconnect Uninterruptible Power Supply “UPS” Systems having a capacity of 750 volt-amperes or more, and to close required fire/smoke dampers.

A separate heating/ ventilating/ air-conditioning (HVAC) system ded

- Listed information technology equipment
- The room occupied only by personnel for maintenance and functional operation of the IT equipment
- Separation of the room from other areas by at least one-hour fire-rated walls, floors and ceilings with protected openings

**Information Technology Rooms are permitted to have wiring installed in the following manner:**

- With flexible cord and attachment plug cap not to exceed 15 feet
- Cord set assembly may be run on the surface of the floor when protected against physical damage
- separate data processing units may be interconnected using listed cable assemblies
- power, communications and connecting cables and receptacles are permitted under a raised floor with conditions: suitable construction of the raised floor; branch circuit supply conductors in conduit, raceway or type MC cable; ventilation in the underfloor area is used for the IT room only; openings in the raised floor protect cables from abrasions and minimize entrance of debris beneath the floor; cables are type DP suitable for use under raised floors in an IT room; abandoned cables removed unless contained in metal raceways
- power, communications and connecting cables and associated listed boxes, connectors, plugs and receptacles are not required to be secured in place

**Procedure for Plan Check and Inspection of Information Technology Rooms:**

Technically NFPA 75 Standard for the Protection of Information Technology Equipment is not listed as a referenced standard under the Fire Code, Electric Code, or Building Code and therefore is not an enforceable document from the City's point of view. However this standard may be used as a guide to safe installations.

Since the CEC provisions cover IT rooms and the NFPA 75 standard is referenced in a Fine Print Note (FPN), we will look to the architect of record to review the proposed use of the IT room and make recommendations based upon an understanding of the tenant's operational needs and the exposure of fire to the equipment and from the equipment. It is the responsibility of a permit applicant to identify any area that will be classified as an Information Technology Room, and to properly detail and construct all required fire separation assemblies, HVAC controls and other features.

- the architect of record shall specify whether the room should have the required features of an IT room
- the architect of record shall provide written assessment to document the design intent
- Detailed compliance information regarding fire separation assemblies, HVAC controls and other features shall be provided in the submittal documents
- If during the course of building, electrical or other inspection it is determined that work underway has created an Information Technology Room without that room having been detailed in the approved construction documents, amendment to the permit detailing compliance will be required OR the construction shall be altered so that the area no longer constitutes an Information Technology Room.