

DEPARTMENT OF LICENSES AND INSPECTIONS <b>CODE BULLETIN</b> <b>No. F-1602</b>		CODE OF GENERAL ORDINANCES OF THE CITY OF PHILADELPHIA TITLE 4 — BUILDING CONSTRUCTION AND OCCUPANCY CODE
SUBJECT:  EMERGENCY RESPONDER RADIO COVERAGE		REFERENCE CODE SECTION(S): F-510 B-403.4.4 B-915.1
ISSUED BY		ISSUE DATE 4/19/2016
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TITLE: Building Code Official, Department of Licenses and Inspections Chief Fire Code Official, Fire Department		PAGE 1 OF 2

### **ISSUE:**

The purpose of this Code Bulletin is to address the installation, testing, maintenance and utilization of Emergency Responder Radio Coverage Systems in new and existing buildings.

### **BACKGROUND:**

When the 2009 International Building and Fire Codes and the 2013 Philadelphia Fire Code were adopted the Philadelphia Building Construction and Occupancy Code specified requirements for Emergency Responder Radio Coverage (ERRC) in buildings (Sections F-510, B-403.4.4, B-915.1). The codes do not specifically require that radio systems be installed in all new buildings, only that radio signal strength be adequate, as defined by a specified criteria, to facilitate fire department communications during emergencies. In existing buildings this requirement only applies where the existing wired communication system cannot be repaired.

Since the requirement for radio coverage was adopted, there has been confusion as to whether or not a **system is required** to be installed in every new building and if so, how is the required acceptance testing completed.

### **DISCUSSION:**

A detailed review of the requirements of the code reveals the following:

1. Sections B-403.4.4 and B-915.1 of the Philadelphia Building Code direct the reader to Section F-510 of the Philadelphia Fire Code regarding requirements for ERRC.
2. Section F-510 spells out the process for establishing the need for ERRC and the design of an ERRC Systems.
  - a. Section F-510.1 requires that buildings have approved radio coverage. If a building meets the requirement without augmentation, an ERRC System is not required to be installed in that building.
  - b. Section F-510.2 requires that when a system is required, that designers review the system design with the fire department to determine if the system is compatible.
  - c. Section F-510.5.1 requires fire department approval and coordination prior to installation of ERRC systems. The Fire Code Unit is the unit within the fire department responsible for processing submissions from builders and owners where the code requires fire department approval and coordination. A review of the Fire Code Unit's records reveals that many projects have reached completion without seeking a review or approval to install the systems. This has led to systems being designed and installed without informing the Fire Department. In one instance, a system was activated and resulted in a partial failure of the city's digital radio system.

- d. Section F-510.5.3 defines the acceptance test procedure for required systems that have been installed.
  - i. The section specifies: “When an emergency responder radio coverage system is required and upon completion of installation, the building owner shall have the radio system tested to ensure that two-way coverage on each floor of the building is a minimum of 95 percent.” Where designers have not contacted the Philadelphia Fire Department as mandated by the code, they have not determined the compatibility of the system with the Department’s communications system, have not had the Department approve the ERRC system design, or even determined whether the Department would have waived the requirement for the system altogether.
  - ii. This section does not provide a procedure for the acceptance testing nor does it address the technical expertise required by City personnel and the manpower costs associated with the acceptance and other required testing.

### **DIRECTION:**

In light of the challenges posed by implementing the requirements of this section of the code, the ability to complete testing, and the latitude granted by the exceptions in Section F-510.1, both the Philadelphia Fire Department and the Department of Licenses and Inspections have established the following direction.

Newly constructed buildings with a floor used for human occupancy located less than 75 feet above or less than 20 feet below the lowest level of fire department vehicle access are not required to conduct Emergency Responder Radio Coverage testing, install an Emergency Responder Radio Coverage System nor install a wired fire department communication system.

Owners of newly constructed buildings with a floor used for human occupancy located 75 feet or more above, or 20 feet or more below, fire department vehicle access are not required to conduct Emergency Responder Radio Coverage testing, nor install an Emergency Responder Radio Coverage System. However, these buildings must be equipped with a wired fire department communication system that shall be designed and installed in accordance with NFPA 72 and shall operate between a fire command center (FCC) or a location approved by the Philadelphia Fire Department when no FCC is required, and elevators, elevator lobbies, emergency and standby power rooms, fire pump rooms, areas of refuge and inside enclosed exit ways. The fire department communication device shall be provided at each floor level within the enclosed exit stairway.

Existing buildings undergoing alterations and meeting the criteria of Section F-510.3 of the Philadelphia Fire Code shall meet the requirements for newly constructed buildings above.

Owners of buildings that have already installed an ERRC System should contact the Fire Code Unit at 215-686-1356 or [pfd.fcu@phila.gov](mailto:pfd.fcu@phila.gov) to ensure that their system has been recorded in their database.

This direction shall replace all previous direction and shall be applied to the review of all permit applications for construction until such time that the City has adopted a definitive policy regarding ERRC System acceptance testing.

**END OF DOCUMENT**