


<b>TECHNICAL BULLETIN</b> <b>CITY OF RALEIGH, N.C.</b> <a href="http://www.raleighnc.gov">www.raleighnc.gov</a>				<b>OFFICE OF THE FIRE MARSHAL</b>	
Subject	Bulletin #	SECTION	PAGE	EFFECTIVE DATE	
<b>Fire Alarm system repair or replacement</b>	TB-8	NCFPC, NFPA	1 of 3	7/1/2006	
		PREPARED BY  Office of the Fire Marshal			Revision Date 06/01/2019

### 1.0 **Purpose**

To establish a procedure for fire alarm system repairs and replacements.

### 2.0 **Organization(s) Affected**

Raleigh Fire Department (Office of the Fire Marshal), Fire Alarm contractors.

### 3.0 **References**

Current adopted edition North Carolina Fire Prevention Code, NFPA 72, North Carolina Administration and Enforcement Code.

### 4.0 **Definitions**

Unless otherwise expressly stated, the following definitions shall, for the purposes of this technical bulletin, have the meanings as defined below.

- 4.1 **Maintenance** shall be defined as the periodic testing, cleaning, adjustment, and operation required to ensure that the system will operate as specified in the referenced standards.
- 4.2 **Repair and replacement** shall be defined as the necessary corrections to achieve compliance as specified in the referenced standards.
- 4.3 **Applicability** shall apply to all buildings, structures, premises and conditions that pose danger of fires, explosions, or related hazards within this jurisdiction. The provisions of this code shall apply equally to existing as well as new buildings, structures, premises and conditions, except that existing buildings, structures, premises and conditions which complied with the minimum safety standards of the code in effect at the time of construction or installation and which have been properly maintained shall be deemed as complying with this code. Only those violations to the technical provisions of the code which create an imminent safety to life hazards and/or which may create delays in the exiting of the building's occupants are required to be corrected. When the current building code requires certain safety to life requirements for existing buildings, those requirements shall apply.

- 4.4 **Like for Like replacement:** Replacing a device or alarm panel with the same model number and the same manufacturer. In the case of a model being discontinued, use the model identified as a replacement for the previous model by the same manufacturer (ex. Fire lite MMX-1 replaces Fire lite MMX). Where a replacement model is not available, then a suitable device can be selected from the FACP equipment manufacturer's compatibility list in the installation manual.
- 4.5 **Record drawings** (as-built) shall comply with TB-7 and NFPA 72.
- 4.6 **Additions, alterations, repairs, rehabilitations or changes of occupancy** shall be permitted to any existing structure or service system without requiring the existing systems to comply with all requirements of the current technical codes. All new work shall conform to the requirements of the current technical codes for new construction. For any portion of an existing building or service system which creates a hazard or unsafe condition, the Code Enforcement Official shall determine the extent to which that portion of the existing building or service system is to be upgraded to conform to the requirements of either the Existing Building Code or the technical codes.
- 4.7 **FACP** is defined as Fire Alarm Control Panel
- 4.8 **NAC** is defined as Notification Appliance Circuit which is used as a power supply or power extender
- 4.9 **NCFPC** is defined as North Carolina Fire Prevention Code
- 5.0 **Requirements**
- 5.1 Construction permits are required for the installation of or modification to fire alarm and detection systems and related equipment. Maintenance as defined in 4.1 and performed in accordance with the referenced codes is not considered a modification and does not require a permit. (NCFPC).
- 5.1.1 Repair or Replacement of fire alarm devices (like for like, 6 or less devices)**
- a. Repair or Replacement of fire alarm devices (like for like) not to exceed 6 devices. (ex. smoke detector, pull station, module, etc.)  
**(This exclusion is subject to fire protection supervisor's approval)**
  - b. Permit required: (stand-alone permit) No plan submittal required. Submit cutsheets for all devices and a detailed scope of work where required on the application.
- 5.1.2 Repair or Replacement of fire alarm devices (like for like, 7 or more devices)**
- a. Repair or Replacement of more than 6 devices (like for like)
  - b. Repair or Replacement of NAC power supply expander (like for like)
  - c. Repair or Replacement of FACP (like for like)
  - d. Permit required: Submit documents required in 5.2.A per (NCFPC)

**5.1.3 Expansion or Replacement of fire alarm systems.**

- a. Addition of new devices to system.
- b. Replacement of FACP and devices (conventional to addressable)
- c. Permit required: Submit documents required in 5.2.B per (NCFPC)

**5.2 Items required for plan review:**

**A. Required for 5.1.2 above:**

1. Completed permit application
2. Supply cutsheets for devices (existing and new) being replaced
3. Include the required documents for fire alarm inspection as listed on City of Raleigh web-site.

**B. Required for 5.1.3 above:**

1. Completed permit application
2. Fire alarm plan (Professional Engineer sealed)
3. Fire alarm specifications
4. Include the required documents for fire alarm inspection as listed on City of Raleigh web-site.
5. Prior to installation, "shop drawings" are required to include as-built drawings, voltage drop, and battery calculations at time of Fire alarm inspection.
6. The code official shall have the authority to require additional documents and information when deemed necessary. (NCFPC)

**6.0 Goal:**

To ensure that systems are properly installed and functioning as designed by the engineer of record for each system, in accordance with NFPA 72 and NCFPC.