



**BUREAU OF FIRE PREVENTION  
FIRE ALARM INSPECTION UNIT**

**TECHNICAL ADVISORY BULLETIN  
No.: 11-01-12**



Supersedes:	<i>FAIU Directive 1.2005</i>
Issuer:	<i>Alex Spektor, Director, Fire Alarm Inspection Unit</i>
Issuance Date:	<i>November 15, 2012</i>
Effective Date:	<i>December 1, 2012</i>
Purpose:	<i>Use of Multiple-Control Units in Existing Building-Wide Fire Alarm System</i>
Related Code Sections:	<i>NYC Building Code, 1968; RS 17-5; NYC Electrical Code, 2011; Buildings Bulletin (BB) No.: 2009-022</i>

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## 1. Background.

Augmenting the existing fire alarm system with new addressable control equipment remains the major factor contributing to increases in the cancellation rate upon acceptance inspections in HI-RI and large area buildings (hospitals, colleges, nursing homes, etc.). This situation created some concerns in the service environment between the business owners, engineers and contractors.

A review of the field inspection reports revealed several common main problems:

- Use of multiple control panels is not integrated to a level of functionality of a single fire alarm system
- Unsynchronized and non-uniformed evacuation signal within the same notification zone
- Excessive actuation time of the altered fire alarm system

This Technical Advisory Bulletin (TAB) provides guidance on some of the most frequently asked questions concerning the use of multiple fire control panels upon extension or upgrade of the existing building-wide fire alarm systems.

## 2. General Recommendations.

- 2.1. As a general rule, the use of multiple fire alarm control panels should be avoided.
- 2.2. The Bureau will support any effective plans to phase-in new and sufficient technologies that entail the temporarily use of two fire alarm control panels.

## 3. Code Compliance Checklist.

The altered fire alarm system shall provide an adequate level of life safety and property protection that meets, as a minimum, the following provisions:

- 3.1. The altered installation comprising the existing and new control equipment shall be arranged to function as a single system;
- 3.2. The system actuation time shall meet the following provisions:
  - a) Partial upgrade projects – not in excess of that criteria under the Code in effect for the original system;
  - b) Replacement projects – not in excess of that criteria under the current Code;
- 3.3. All notification appliances within any notification zone must be identical and synchronized;
- 3.4. The evacuation signal on any modified floor shall be consistent with the existing approved pattern;
- 3.5. Interface between the existing and new control units shall be configured to support the sequence of operation mandatory for the altered fire alarm system.

#### 4. **Additional Code Provisions.**

For more information about the filing, installation and functionality requirements, refer to *Appendix A*, as applicable.

#### 5. **System Functionality.**

Where the altered fire alarm system is not capable of providing a level of functionality compliant with Section 3 of TAB 11-01-12 and Sections 2(b) or 2(c) of BB 2009-022, as applicable, the entire system must be replaced in accordance with the requirements of Section 3 of BB 2009-022.

#### 6. **Retroactive Requirements.**

A partial extension/upgrade of an existing fire alarm system necessary to support construction improvements within a section of a building shall not retroactively require a complete upgrade.

#### 7. **Filing.**

Before commencing any extension/upgrade projects that require the multiple phase filing/inspections, applicants must request a variance from the Technology Management Unit (Form TM-4). Any request submitted pursuant to this subsection shall include the following documentation:

- 7.1. A timetable for completion of each installation phase of the large fire alarm projects. The proposed timetable shall not exceed *four* years and must be signed or co-signed by the owner. Where approved by the Bureau, the timetable required by this subsection shall be enforceable against the building owner or against any subsequent owner;
- 7.2. At the time of permit application (Form PW-1), the proposed multiple-phase installation of a fire alarm system for the existing building shall be filed by the use of *the multiple phase filings* coherent with the approved installation schedule.

#### 8. **Inquiries.**

Should you have any questions or if further clarification is necessary, please feel free to contact the Fire Alarm Inspection Unit Technical Support. All inquiries must be forwarded in writing by submitting a completed Form FA-11.



Alex Spektor, Director  
Fire Alarm Inspection Unit

#### Attachments:

1. Appendix A: "Correlation of BB 2009-022 and TAB 11-01-2012."

Appendix A

CORRELATION OF BUILDINGS BULLETIN No.: 2009-022 AND TECHNICAL ADVISORY BULLETIN No.: 11-01-2012

EXISTING APPROVED FIRE ALARM SYSTEMS  
INSTALLED UNDER 1968 OR PRIOR CODES

REPAIR		ALTERATIONS		REPLACEMENT
(1)	(2)	(3)	(4)	(5)
<p><b>DESCRIPTION</b></p> <p>Any work performed on a fire alarm system to maintain it in working order. Replacement of a fire command station (FCS), fire alarm control panel or distributed control unit(s) (RCL, TTE, DGP, etc.) is not considered as a repair and shall be filed consistent with the directions for alterations – Sector (2).</p> <p><b>SEQUENCE OF OPERATION</b></p> <p>The altered fire alarm system may be programmed in accordance with the existing approval.</p> <p><b>WORK PERMIT</b></p> <p>Not Required</p> <p><b>CODE COMPLIANCE</b></p> <p>The system layout and coverage shall remain as originally approved. <b>Section 1 of BB 2009-022.</b></p>	<p><b>DESCRIPTION</b></p> <p>A partial upgrade of the <b>functional</b> alarm system that does not involve a change of use or occupancy and includes a <b>direct replacement</b> of the existing fire alarm control unit (FCS) or remote control unit(s).</p> <p><b>SEQUENCE OF OPERATION</b></p> <p>The altered fire alarm system may be programmed in accordance with the existing approval.</p> <p><b>WORK PERMIT</b></p> <p>Required. <b>The construction projects of this type may require multiphase filings.</b></p> <p><b>CODE COMPLIANCE</b></p> <p>Any portion of the existing system affected by such alteration shall comply with <b>Section 2(a) of BB 2009-022.</b></p>	<p><b>DESCRIPTION</b></p> <p>A partial extension and/or upgrade of the <b>functional</b> building-wide fire alarm system in conjunction with the building enlargement not involving a change of use or occupancy and requiring the <b>addition and permanent use of an intermediate control unit.</b></p> <p><b>SEQUENCE OF OPERATION</b></p> <p>The altered fire alarm system may be programmed in accordance with the existing approval.</p> <p><b>WORK PERMIT</b></p> <p>Required</p> <p><b>CODE COMPLIANCE</b></p> <p>Any portion of the existing fire alarm system affected by such enlargement shall comply with <b>Section 2 (b) of BB 2009-022.</b></p>	<p><b>DESCRIPTION</b></p> <p>A partial extension and/or upgrade of the <b>functional</b> building-wide fire alarm system in conjunction with the building enlargement involving a change of use or occupancy and requiring the <b>addition and permanent use of an intermediate control unit.</b></p> <p><b>SEQUENCE OF OPERATION</b></p> <p>The entire system shall be reprogrammed to comply with the current Construction Code, unless otherwise approved by the Technical Affairs Division of the Department of Buildings.</p> <p><b>WORK PERMIT</b></p> <p>Required</p> <p><b>CODE COMPLIANCE</b></p> <p>Any portion of the existing fire alarm system affected by such enlargement shall comply with <b>Section 2 (c) of BB 2009-022.</b></p>	<p><b>DESCRIPTION</b></p> <p>A complete upgrade of the existing dysfunctional and inoperable building-wide fire alarm system including those that <b>temporarily</b> employ the use of the existing fire alarm control unit (FCS) and new master (or local) control unit.</p> <p><b>SEQUENCE OF OPERATION</b></p> <p>The system functionality shall be programmed to comply with the current Construction Code.</p> <p><b>WORK PERMIT</b></p> <p>Required. <b>The construction projects of this type may require multiphase filings.</b></p> <p><b>CODE COMPLIANCE</b></p> <p>The design and installation of the entire fire alarm system shall comply with <b>Section 3 of BB 2009-022.</b></p>

**Notes:**

- The highlighted sections indicate the scope of Technical Advisory Bulletin No.: 11-01-12 as it relates to Buildings Bulletin No.: 2009-022.