

**Table 8.1: General Requirements of Fire Detection and Alarm Systems**

ITEMS	REQUIREMENTS
14. FIRE ALARM CONTROL PANEL (FACP)	<p><b><u>9. OTHER FIRE SUPPRESSION SYSTEMS –SUPERVISORY SIGNAL INITIATION</u></b></p> <ul style="list-style-type: none"> <li>i. An off-normal condition of a fire suppression system shall annunciate a supervisory condition at the building fire alarm control unit.</li> <li>ii. Supervisory signals that latch in the off-normal state and require manual reset of the system to restore them to normal shall be permitted.</li> </ul> <p><b><u>10. SUPPRESSION SYSTEM ACTUATION-RELEASING SERVICE CONTROL UNITS</u></b></p> <ul style="list-style-type: none"> <li>i. Releasing service control units shall be connected to the protected premises fire alarm system.</li> <li>ii. Fire alarm and supervisory signals generated at the releasing control unit shall be annunciated at a protected premises fire alarm unit.</li> <li>iii. Actuation of any suppression system connected to a releasing service control unit shall be annunciated at the protected premises fire alarm control unit even where the system actuation is by manual means or otherwise accomplished without actuation of the releasing service control unit.</li> <li>iv. If a valve is installed in the connection between a suppression system and an initiating device, the valve shall be supervised.</li> </ul> <p><b><u>11. TROUBLE SIGNAL INITIATION</u></b></p> <ul style="list-style-type: none"> <li>i. Automatic fire suppression system alarm-initiating devices and supervisory signal-initiating devices and their circuits shall be designed and installed so that they cannot be subject to tampering, opening, or removal without initiating a Trouble signal. This provision shall include junction boxes installed outside of buildings to facilitate access to the initiating device circuit.</li> </ul> <p><b><u>12. NOTIFICATION/FIRE ALARM SIGNAL</u></b></p> <ul style="list-style-type: none"> <li>i. Fire alarm and mass notification systems provided for evacuation or relocation of occupants shall have one or more notification on each floor of the building.</li> </ul>
	<p><b>15. POWER SUPPLIES</b></p> <ul style="list-style-type: none"> <li>i. At least two power supply sources shall be provided for any Fire Detection and Alarm System, one primary and one secondary, fully supervised by FACP for failure, loss of power, trouble, short circuit conditions.</li> <li>ii. Each power supply shall be of adequate capacity for the full functionality of the System.</li> <li>iii. Primary Supply shall be directly from the Electric Utility Supply.</li> <li>iv. The supply from Electric Utility branch shall be direct to Fire Alarm System only and shall not serve any other loads.</li> <li>v. The system circuit disconnecting means shall be permanently identified as to its purpose, shall be secured and shall be accessible only to authorized personnel.</li> <li>vi. Such disconnecting switch shall be clearly marked "FIRE ALARM/DO NOT DISCONNECT"</li> <li>vii. All wiring from Electric Utility branch to Fire Alarm Control Panel shall be 2 hour fire rated and protected from mechanical damages.</li> <li>viii. An overcurrent protective device shall be provided in accordance with <b>NFPA 70</b>.</li> <li>ix. The secondary means of Power Supply shall be permitted to be either approved UPS in accordance with NFPA 111 or Batteries dedicated to the FACP.</li> <li>x. Operation on secondary power shall not affect the required performance of a system or supervising station facility, including alarm, supervisory, and trouble signals and indications.</li> </ul>