

Table 8.1: General Requirements of Fire Detection and Alarm Systems

ITEMS	REQUIREMENTS
26. WATER LEVEL SUPERVISORY	<ol style="list-style-type: none"> Two separate and distinct signals shall be initiated: one indicating that the required water level has been lowered or raised (off-normal) and the other indicating restoration. A pressure tank signal-initiating device shall indicate both high- and low-water level conditions. The off-normal signal shall be initiated when the water level falls 76 mm or rises 76 mm. A supervisory signal-initiating device for other than pressure tanks shall initiate a low-water level signal when the water level falls 300 mm.
27. PRESSURE SUPERVISORY	<ol style="list-style-type: none"> Two separate and distinct signals shall be initiated: one indicating that the required pressure has increased or decreased (off-normal) and the other indicating restoration of the pressure to its normal value. A pressure tank supervisory signal-initiating device for a pressurized limited water supply, such as a pressure tank, shall indicate both high- and low-pressure conditions. The off-normal signal shall be initiated when the required pressure increases or decreases by 70 kPa (10 psi). A pressure supervisory signal-initiating device for a dry-pipe sprinkler system shall indicate both high- and low-pressure conditions. The off-normal signal shall be initiated when the pressure increases or decreases by 70 kPa (10 psi). A steam pressure supervisory signal-initiating device shall indicate a low-pressure condition. The off-normal signal shall be initiated prior to the pressure falling below 110% of the minimum operating pressure of the steam-operated equipment supplied.
28. CONTROL VALVE SUPERVISORY	<ol style="list-style-type: none"> Two separate and distinct signals shall be initiated: one indicating movement of the valve from its normal position (off-normal) and the other indicating restoration of the valve to its normal position. The off-normal signal shall be initiated during the first two revolutions of the hand wheel or during one-fifth of the travel distance of the valve control apparatus from its normal position. The off-normal signal shall not be restored at any valve position except normal. An initiating device for supervising the position of a control valve shall not interfere with the operation of the valve, obstruct the view of its indicator, or prevent access for valve maintenance.

Points to Ponder

Fire Detection and Alarm Systems are many a times despised and ignored because of frequent experience of false alarms, which can be nuisance and waste of time when unwanted evacuations take place.

Reasons for false alarms are

- **Incorrect selection of type of detector for particular area**
- **Incorrect installation of the system**
- **Poor maintenance or absence of maintenance**