

4.3. Installation and Spacing of Spot Type Smoke Detection System

- 4.3.1.** The Installation and Spacing of Spot Type Smoke Detection and Alarm System shall comply with **Table 8.3.**, Spot Type Smoke Detection System as per **Table 8.2.** and the General Requirements Fire Detection and Alarm System as per **Table 8.1.**

Table 8.3: Installation and Spacing of Spot Type Smoke Detection

ITEMS	REQUIREMENTS
1. INSTALLATION AND SPACING OF SPOT TYPE SMOKE DETECTORS	<p><u>1. GENERAL</u></p> <ul style="list-style-type: none"> i. The location and spacing of smoke detectors shall be based upon the anticipated smoke flows due to the plume and ceiling jet produced by the anticipated fire, as well as any pre-existing ambient airflows that could exist in the protected compartment. ii. Detector location and spacing shall take into consideration the following features. <ul style="list-style-type: none"> a. Ceiling shape and surface. b. Ceiling height. c. configuration of material content in the area. d. combustion characteristics of the fuel load in the area. e. compartment ventilation. f. Ambient temperature, pressure, altitude, humidity and atmosphere. iii. If the intent is to protect against specific hazard, detectors shall be placed closer to the hazard, than required by the spacing guidelines <p><u>2. SMOOTH CEILINGS</u></p> <ul style="list-style-type: none"> i. Spot type detectors shall be placed on the ceiling. ii. Spot-type smoke detectors shall be located on the ceiling not less than 100 mm from a sidewall to the near edge. iii. Detectors shall not be installed on sidewall as regular practice. Where whole areas are covered by ceiling mounted detectors and corner areas are desired to be protected, detectors shall be mounted on sidewalls at 300 mm down from the ceiling to the top of the detector. iv. The distance between smoke detectors shall not exceed a nominal spacing (S) of 9 m. v. There shall be detectors within a distance of one-half the nominal spacing, measured at right angles from all walls or partitions extending upward in sloped ceilings or towards center to within the top 15 percent of the ceiling height. vi. All points on the ceiling shall have a detector within a distance equal to or less than 0.7 times the nominal 9 m spacing, S. (0.7S).