

Table 14.1: Fire Detection and Life Safety Requirements for Substations

ITEMS	REQUIREMENTS
3. FIRE DOORS	<ul style="list-style-type: none"> i. All doors located in fire barriers, all doors opening into exit corridor, doors in the stairs shall be fire-rated and shall comply with requirements of Chapter 1, Table 1.10. ii. All doors located in exterior walls or 3 hour fire barrier vaults, doors shall be 3 hour fire-resistance rated as per Chapter 1, Table 1.10. iii. All doors between compartments shall be self-closing and Panic hardware shall be provided on all exit doors.
4. FIRE ACCESS	<ul style="list-style-type: none"> i. Fire access shall be provided for the substation as per Chapter 2. Fire Access. ii. Minimum of 6 m of road access having capacity to carry fire apparatus weight as per Chapter 2, shall be ensured in remote, rural and desert areas.
5. MEANS OF EGRESS	<ul style="list-style-type: none"> i. Minimum of 2 exits shall be available from each compartment except storage, offices and roof. ii. Basements and Cable spreading areas' stairs and exits shall discharge directly outside the building at ground floor. iii. 50% of building exits shall discharge directly outside. iv. Basements and Cable spread areas, battery rooms, indoor transformer rooms shall have a maximum travel distance of 23 m, to the exit. v. Control rooms, offices, switchgear rooms, battery charger rooms, HV and LV rooms shall have maximum travel distance of 60 m, to the exit. vi. Commonpath of travel anywhere in the building shall not exceed 15 m. vii. There shall be no dead end anywhere in the building. Exits shall be arranged remotely at opposite directions. viii. Batteries, relay and control panels, equipment in the substation shall be arranged such that minimum of 1200 mm exit access width is available between such arrangements or between equipment and wall. ix. Means of egress requirements, dimensions, specifications not mentioned in this section shall comply with Chapter 3. Means of Egress.
6. FIRE EXTINGUISHERS	<p><u>1. OFFICES, CORRIDORS</u></p> <ul style="list-style-type: none"> i. Fire extinguishers shall be provided as per Chapter 4. Table 4.3.1. <p><u>2. LV ROOMS, TELEPHONE ROOMS, CONTROL ROOMS, SWITCHGEAR ROOMS, RMU ROOMS</u></p> <ul style="list-style-type: none"> i. Fire extinguishers shall be provided as per Chapter 4. Table 4.3.4. <p><u>3. HV ROOM</u></p> <ul style="list-style-type: none"> i. Fire extinguishers shall be provided as per Chapter 4. Table 4.3.5. <p><u>4. TRANSFORMER (DRY TYPE) ROOM</u></p> <ul style="list-style-type: none"> i. Fire extinguishers shall be provided as per Chapter 4. Table 4.3.5.