

Table 14.1: Fire Detection and Life Safety Requirements for Substations

ITEMS	REQUIREMENTS
7. EXIT SIGNS	<ul style="list-style-type: none"> i. Exit and Directional signs shall be provided at all exit doors and corridors in accordance with Chapter 5. Section 3. ii. Photoluminescent Exit and Directional signs shall be provided at all exit doors and exit access at basements and cable spread areas in accordance with Chapter 5. Table 5.1.4. iii. Evacuation plans shall be provided at control room, basements and cable spread areas in accordance with Chapter 5. Table 5.1.8. iv. Adequate WARNING signs regarding electric shocks, thermal shock impacts, use of inappropriate Fire Extinguishing media, precise identification of breaching inlets for particular water system etc. shall be provided throughout the facility.
8. EMERGENCY LIGHTING	<ul style="list-style-type: none"> i. Monitored type Emergency lighting shall be provided throughout the substation in accordance with Chapter 6. Section 3.3. ii. Outdoor type High intensity monitored emergency lighting shall be provided near the outdoor transformers, capacitors and fire pump room, in accordance with Chapter 6. Section 3.3. iii. Battery room Emergency Exit Lights shall be explosion proof.
9. VOICE EVACUATION SYSTEM	NOT REQUIRED
10. FIRE ALARM SYSTEM	<p><u>1. BATTERY CHARGER ROOM, CONTROL ROOM, CEILING VOIDS, FLOOR VOID, COMMUNICATION ROOM, RMU ROOM, SWITCHGEAR ROOM, RELAY ROOM, LV/MV/HV ROOM</u></p> <ul style="list-style-type: none"> i. Aspiration Type Air Sampling Smoke Detection System shall be provided as per Chapter 8. Section 4.5. OR point type Optical smoke detection shall be provided in accordance with Chapter 8. Section 4.3. <p><u>2. BATTERY ROOM</u></p> <ul style="list-style-type: none"> i. Heat Detection and Alarm System shall be provided as per Chapter 8. Section 4.7. ii. Flame Detection and Alarm System shall be provided as per Chapter 8. Section 4.9. iii. (In addition, listed Hydrogen detectors shall be provided to monitor the Hydrogen levels and to be interfaced with battery room exhaust fan) <p><u>3. CABLE SPREADING ROOM, CABLE BASEMENT, CABLE TUNNEL, CABLE TRENCHES</u></p> <ul style="list-style-type: none"> i. Aspiration Type Air Sampling Smoke Detection System shall be provided for the ceiling as per Chapter 8. Section 4.5. ii. Linear Type Heat Detection System shall be provided on the cable trays as per Chapter 8. Section 4.8. <p><u>4. INDOOR OIL FILLED TRANSFORMER ROOM</u></p> <ul style="list-style-type: none"> i. Multisensors specifically listed for purpose shall be provided as per Chapter 8. Table 8.12.1.