THE BASIC REQUIREMENTS FOR FIRE PROTECTION OF HIGH-RISE BUILDING IS WAC AND AUDA AREA

1. STORAGE SYSTEM:

ON,OFF switches located near the hose reel hose + hydrant outlet, at each floor for the pump. Water storage tank capacity should be 50 cubic meters and the pump should be capable of 2.5kg/ pressure as measured at the terrace level should be installed.

The Riser for the buildings exceeding 15 meters and above 18 meters height should be not less than 100 mm. Internal diameter. The riser should be connected to the hydrant of the terrace tank with a stop valve and a NRV to act as a Down comer.

The Hydrant outlet should be 63 mm. The hose reel should be of the building is divided into two or more parts then each part should have a separate riser with the fittings at each floor level. Each floor should have one hydrant outlet with a coupling for attaching a 63 mm. hose pipe. The hydrant should be so placed that the hose pipe should not cross the landing. The length of the hose reel hose should be enough to reach the farthest corner of a floor. Hose reels 45 meters long 63 mm. dia. hose and 12.5 mm. bore nozzle at alternate floors. Hose reel should be capable to the flow.

The Down comer main should be installed at a point near the entry to the premises where a fire service vehicle can easily be fixed.

A permanent hydraulic point comprising of 63 mm dia size Zone of hydrant valves should be installed at the terrace level.

Hydrant valve and hose reel connection could be done at The terrace level.

The Overhead tank shall be of a capacity of not less than 20,000 litres. The Underground tank shall be of not less than 1,00,000 litres.

2. FIRE LIFT:

The Fire Lift and all the lifts should have a provision to ground automatically in case of emergency. The Fire Lift should be of a capacity of not less than 15 persons. The Fire Lift should be divided into two or more parts then each part should have a Fire Lift. Lift well lobbies, lift trunks, trusses to protrude the lift well so connected that it will automatically operate where alarm bell point is operate, so that it prevents that lift well getting smoke logged.

3. FIRE ALARM:

Fire alarm call point to be installed at each floor with sounders capable of being heard all throughout the building.

4. FIRE EXTINGUISHERS:

One Carbon Dioxide (CO2) type extinguisher of 4.5 kg. with 05 mark and one extinguisher of 4.5 kg. with 05 mark Dry Chemical Powder (DCP) type extinguisher with 05 marks be installed on each floor in case of commercial building.

One Carbon Dioxide (CO2) type extinguisher of 4.5 kg. with 05 mark, 04 Two Carbon Dioxide (CO2) extinguisher of 2 kg. with 05 mark capacity on each floor and 5kg. Dry Chemical Powder (DCP) with 05 mark type extinguisher on alternate floors in case of residential building.

If the building is divided into two or more parts then each part should have three extinguisher minimum.

5. EVACUATION:

The staircase has to be open from at least one or two sides but if the staircase is in the centre core of the building it has to be pressurized to prevent it from getting smoke logged.

The Riser / Down comer should be located in the staircase or close to it to make it easily approachable in case of the Fire from the hydrant.

6. BASEMENT:

The basement of 200 sq. metres or more should be protected with Automatic Sprinkler system with at least one sprinkler head for every 9 sq.mt Car parking space.

Additionally the protected by a Hydrant outlet and two 25 mm. bore Hose reel hoses with 8 mm. nozzle connected to the water supply.

7. SMOKE DETECTOR:

Smoke detector of approved type should be installed and be properly overfed to prevent damage to the building where the lightening strikes.

8. PASTE LUMINESCENT PAINTS BLOWN SIGNAGES :-

The building facts is a confined area in it has an enclosed staircase or is not well lit up on the inside, then adequate photo luminescent / auto glow / signages should be displayed on the walls of the staircase to help the occupants to find the way out in case of emergency. The signage should indicate the lighting, fire safety, First-aid and other safety equipment present on the respective floors landing/pathway/dead end and strong all well route leading to the staircase and exit.

9. ELECTRIC SUPPLY TO THE FIRE PUMP AND SAFETY SYSTEM:

Electricity supply to the fire pump, fire alarm system, staircase pressurization system and the lift would be made available from the main electrical supply. i.e. from Electrical power supply of the company (This is to ensure availability of power supply to the fire Protection & Safety system even after the main electrical supply to the building is switched off at the time of fire.

V IMPORTANT INSTRUCTIONS :

Fire Fighting Equipment should be installed by the fire service authority, if the fire officer concerned feels the need for additional equipment / protection measures / ventilation system required in equipment (i.e. Passive system / Suppression system / Fire door - Window / Detection system / Fire Alarm system / Hose reel / Hydrant / Fire lift / Lift pre-fitted / Fire door / Fire door / Fire door / Glazing / Compartment / Confined area, those additional measures / equipment have to be implemented / installed.

VI. FIRE ALARM CALL POINTS:

EACH FLOOR HAVE A FIRE ALARM CALL POINT INSTALLED.

SYMBOL	DESCRIPTION
	FIRE EXTINGUISHER
	U.C.B. ON LF.L.
	ON CEIL(LF.) HYDRANT VALVE
	SLUICE VALVE
	NON RETURT VALVE
	TWO WAY STANDER CONNECTION
	RISE ON GROUP
	MERGER
	FIRE HOUSE REEL
	FIRE HOUSE BOX
	COURT YARD HYDRANT VALVE
	LANDING HYDRANT VALVE
	AIR RELEASE VALVE

LIABILITY (S.O.P.S. 2001-11, NO. 3 S.R.):

NETWHATSOever,AND ON WHOSEVER PURSUANCE OR UNDER WHOSE AUTHORITY THE ACT AND THESE REGULATIONS, ANY PERSON UNDERTAKING ANY WORK OR ACTING AS ARCHITECT, ENGINEER OR BUILDER OR OWNER OR OWNERS LIABLE FOR ANY INJURY OR DAMAGE OR LOSS WHATSOEVER THAT MAY BE CAUSED TO ANY ONE ON OR AROUND THE AREA DURING SUCH CONSTRUCTION AND NO LIABILITY WHATSOever IN THIS REGARD SHALL BE CAST ON THE AUTHORITY

RESPONSIBILITY (S.O.P.S. 2001-11, NO. 4 S.R.& 5 S.R.):

SUBMITTING OF DRAWINGS AND ACCEPTANCE OF ARE DEPARTMENT, PROVIDES EFFECTIVE REVIEW OF THE DRAWINGS, SUBMITTED DRAWINGS AND DOES NOT ABSOLVE THE OWNER, ARCHITECT, ENGINEER SHALL NOT DISCHARGE THE OWNER, OWNERS,ARCHITECT,ELCOM OF WORKS SITE SUPERVISOR, STRUCTURAL DESIGNER, DEVELOPER, OWNER FROM THEIR RESPONSIBILITY, IMPLIED UNDER THE ACT, THE DEVELOPMENT CONTROL REGULATIONS AND THE LAWS OF TORT AND CIVIL ACTS.