Fire Fighting Norms

1. Low-Rise (upto 30 m above ground): NA
2. Mid-Rise (30 m+ to 70 m ground):
    a. Doors to meter room and electrical duct (if opening into a fire escape staircase or passage thereto) should have a 2 hour fire rating with smoke seal.
    b. Fire hose cabinet with 30 m coverage in/near fire staircase.
    c. Sprinkler in lift lobby (from unit upto staircase).
    d. CO_2 -type 5 kg Fire extinguisher adjacent to staircase gate on each floor.
3. High-Rise (70 m+ to 150 m ground):
    a. No materials with fire rating < 1 hour to be used in the access path from unit to staircase. Unit Main door and Staircase doors to have 2 hour fire rating with smoke seal and other wood to be avoided in lobby design. If the access path from unit to staircase is sprinkled, requirement will only be limited to unit main door and staircase door having 2 hour fire rating with smoke seal – no other limitation on use of any material in the lobby.
    b. Further, doors to meter room and electrical duct (if opening into a fire escape staircase or passage thereto) should have a 2 hour fire rating with smoke seal.
    c. Fire hose cabinet with 30 m coverage in/near fire staircase.
    d. Sprinkler in lift lobby (from unit upto fire staircase).
    e. Sprinkler in kitchen of each unit.
    f. Smoke detector in lift lobby (from unit upto fire staircase).
    g. CO_2 -type 5 kg Fire extinguisher adjacent to staircase gate on each floor.
    h. Escape stairways will have pressurization provision hooked up to fire alarm system.
4. Super High-Rise (150 m+ above ground):
    a. No materials with fire rating < 1 hour to be used in the access path from unit to staircase. Unit Main door and Staircase doors to have 2 hour fire rating with smoke seal and other wood to be avoided in lobby design. If the access path from unit to staircase is sprinkled, requirement will only be limited to unit main door and staircase door having 2 hour fire rating with smoke seal – no other limitation on use of any material in the lobby.

Comment [Y1]: Revision 2

Comment [Y2]: Revision 2

Comment [Y3]: Revision 2

b. Further, doors to meter room and electrical duct (if opening into a fire escape staircase or passage thereto) should have a 2 hour fire rating with smoke seal.
c. Fire hose cabinet with 30 m coverage in/near fire staircase.
d. Sprinkler in lift lobby (from unit upto staircase).
e. Sprinkler in all habitable rooms (living/dining, bedrooms, kitchen) of each unit.
f. Heat detector in the kitchen.
g. Smoke detector in lift lobby (from unit upto fire staircase).
h. CO_2 -type 5 kg Fire extinguisher adjacent to staircase gate on each floor.
i. Floor-to-floor fire sealing of all service ducts located inside the building footprint.
j. Escape stairways will have pressurization provision hooked up to fire alarm system.

Comment [Y4]: Revision 2

5. FF Piping Systems:

Comment [Y5]: Revision 2

a. Hi-end and Luxury residential + Excelus and Supremus office projects located at locations which are significantly exposed to direct sea winds viz. buildings in BMC limits lying in CRZ area / those with direct exposure to sea winds (salty) e.g. Bellissimo: GI pipes and GI fittings.
b. At all other projects: Painted MS pipes and MS fittings.

6. In case of midrise buildings where sprinklers provision is limited to only lift lobbies, possibility of integrating sprinklers with the wet riser should be examined. In case where cluster of closely spaced buildings are planned, a common centralized fire fighting system has to be designed rather than a stand-alone system for each building.

Comment [Y6]: Revision 2

7. Fire Doors to staircase to have panic bar only if it is a high end building whose security needs demand a panic bar to preventing opening of fire door. In such cases, the panic bar has to be coupled with an (contact) alarm system which raises alarm/buzzer when the door is kept open for a prolonged duration (> 5 minutes). In all other cases, a simple hinge mechanism is acceptable for a fire door with the door openable from both sides.
8. Covered Parking Areas:
   a. Sprinklers
   b. Hydrants with 30 m coverage near each exit staircase and then additional hydrants at 30 m distance within the basement.

c. Fire compartmentalization of max. 10,000 sq. mtrs.
d. In parking areas with mechanical ventilation, following air-changes per hour are required:
    i. 7.5 – in normal scenario
    ii. 15 – in fire scenario

9. Plant/Service Rooms:
    a. Sprinkler
    b. Heat Detector
    c. Fire Extinguisher
    d. Fire extinguisher outside the plant room – type to be determined depending on the type of fire which is sought to be dealt with.

Flexibility of upto +7 m in building height can be considered for the application of the aforesaid norms.

For any additional requirements as per CFO NOC, analysis to be done of whether such requirements are needed as per international standards and then decision to be made in discussion with Director-Design.

These are to be applied to all buildings where RCC construction has started on/after 1.1.2011.