

REFUGE FLOORS



FLS	REFUGE FLOORS	
A1	Fire and Life Safety (FLS) Requirements Annex_1	Revisions_2021
Item	Provisions	Notes
1.0	High-rise Buildings.	
1.1	High-rise building of more than 30 stories shall be provided with at least one refuge floor at an interval of not more than 20 stories.	
2.0	Refuge Floors.	
	The refuge floor shall comply with the following requirements:	
2.1	It shall be of masonry construction having fire resistance rating not less than 2 hours.	
2.2	At least 50% of the gross floor area of the refuge floor shall be designated as holding area.	
2.3	There shall be no commercial activities in the holding area.	
2.4	The size of the holding area shall be adequate to accommodate at least half the total occupant load of all stories above and below the refuge floor, basing on 0.3m ² per person.	
2.5	The holding area shall be separated from other areas of the refuge floor by compartment wall having fire resistance rating not less than 2 hours. Link of the holding area with other occupied rooms/areas shall be via an external corridor, or a smoke-stop lobby.	
2.6	The holding area shall be naturally ventilated with permanent openings on at least 2 sides of external walls. Height of opening shall not be less than 1200mm high and the total area of ventilation openings shall not be less than 25% of the floor area of the holding area.	
2.6.1	All parts of the holding area shall be within 9m of any ventilation opening. Ventilation opening shall be located at least 1.5m horizontally and 3m vertically above adjoining unprotected opening.	



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2.7	The holding area can also be mechanically ventilated or air-conditioned in the event of emergency.	
2.8	The ventilation equipment shall be connected to secondary power supply via 2 hour fire resistance cable. The ventilation system shall be indicated and shall not share with other areas.	
2.9	Automatic sprinkler system shall be provided for the refuge floor.	
2.10	Escape routes leading to the holding area shall be thru smoke-stop/fire lobby or external corridor.	
2.11	A sign depicting "REFUGE FLOOR" shall be displayed inside the staircase and on wall immediately outside the staircase at the refuge floor. The sign of lettering size not less 50mm shall be displayed at a height of 1500mm above the landing/ finished floor level.	
2.12	Emergency lighting shall be provided to cover all areas of the holding area. Such lighting shall be connected to secondary power supply, i.e. generator, battery, etc.	
2.13	Two-way voice communication system shall be provided at the firefighting lift lobby serving the refuge floor.	

