Inspection Checklist FSIS-ASPL/FSI/F14

Part A: General

Name of the Hospital		**Name & Designation of Authorized Person**	
Address		**Contact Details [Mob.]**	
Date (s) of Inspection		**Email**	
Name & ID of Inspecting Officer		**Inspection Request No. & Dated**	
Date of Last Inspection, if any.		**Details of NOC/FSC from Local Fire Authority: Date of Issue & Valid Until Please enclose photocopy**	

Part B: Building Details

S. No.	Subject	Detail(s)
1.	Year of Construction	
2.	Height (m)	
3.	Building Location: At Grade Level/On Podium	
4.	Number of Building Blocks	
5.	Class of Occupancy	
6.	Plot Area (m2)	
7.	Number of Floor(s)	
8.	Type of Construction: Type1/Type2/ Type3/Type 4 as acclaimed	
9.	Number of Basement(s)	
10.	Area of Basement(s)	
11.	Total Covered Area (m2)	
12.	Area of Typical Floor:	
13.	Audit Reference Statutes: A. Building Controls Parameters B. Fire & Life Safety Measures	
14.	Special risk area(s):	

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Part C: Checklists

The detailed fire and life safety requirements on issues as applicable to the hospital building must be collected from the statutes [DCR/Building Bye-laws] and Code & Code of Practice [National Building Code of India & Indian Standards] and tabulated in the "Required" column in the table C.1 through C.19 and whereas the field observations must be recorded in the column "Provided"

Table-C1: Means of Access

Sr. No.	Subject	Required	Provided	Remarks, if any
1.	Width of Access Road to plot/building(m)			C/NC
2.	Width of Joining Road (m)			C/NC
3.	Curl-de-sac, if any, Distance			C/NC
4.	Width of main entrance to plot (m)			C/NC
5.	Height of Arch, if any			C/NC
6.	Width of Gate (m)			C/NC
7.	Building at Grade Level:- a. Width of road all around building(m) b. Turning Radius (m) c. Load Bearing Capacity (tons)			C/NC
8.	Building on Podium, if applicable • Fire Tender Access Width (m) • Building Perimeter Covered (m) • Width of Ramp (m) • Gradient			C/NC

Table-C2: Requirements for Glass Façade

S. No.	Subject	Type of Building Protection		Required	Provided	Remarks
		Fully Sprinklered	Non Sprinklered			
1.	Type of Glass	Tempered	Tempered			
2.	Fire Resistance Rating	No Rating Required provided:- 1. Sprinklers are provided within 600 mm from the glass				

		and so installed that full coverage is provided to glass. 2. Building has fire separation of 9 m or more.				
3.	Type of Glass Assembly	Non-Combustible	Non-Combustible			
4.	Sealing of gaps	All gaps between floor-slabs and façade assembly shall be sealed at all levels by approved fire-resistant sealant material of equal fire rating as that of floor slab to prevent fire and smoke propagation from one floor to another.				
5.	Operable Panels	a) Operable panels shall be provided on each floor and shall be spaced not more than 10 m apart measured along the external wall from centre-to centre of the access openings. b) Such openings shall be operable at a height between 1.2 m and 1.5 m from the floor, and shall be in the form of open able panels (fire access panels) of size not less than 1 000 mm × 1 000 mm opening outwards. c) The wordings, 'FIRE OPENABLE PANEL — OPEN IN CASE OF FIRE, DO NOT OBSTRUCT' of at least 25 mm letter height shall be marked on the internal side. d) Such panels shall be suitably distributed on each floor based on occupant concentration. These shall not be limited to cubicle areas and shall also be located in common areas/corridors to facilitate access by the building occupants and fire personnel for smoke exhaust in times of distress.				

6.	Selection, design, fabrication, installation, testing and maintenance of glazing system and its materials.	For detailed requirements please see clause 8, Part 6, Structural Design-Section 8, Glass and Glazing, NBC 2016				

Table-C3: Surface Materials and Their Applications

S. No.	Class of Finish	Use Locations	Required	Provided	Remarks
1.	Class 1	May be used in any situation			
2.	Class 2	May be used in any situation, except on walls, facade of the building, staircase and corridors.			
3.	Class 3	May be used only in living rooms and bed rooms (but not in rooms on the roof) and only as a lining to solid walls and partitions; not on staircases or corridors or facade of the building.			
4.	Class 4	These which include untreated wood fibre boards which may be used with due fire retardant treatment as ceiling lining, provided the ceiling is at least, 2.4 m from the top surface of the floor below, and the wall surfaces conform to requirements of class.			

Table-C4: Means of Egress

S. No.	Subject	Required/ Permitted	Provided	Remarks, if any

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1.	Travel Distance			C/NC
2.	Length of Dead-End Corridor, if any			C/NC
3.	Common Path of Travel (m)			C/NC
4.	Number of Exits • Basements • Upper Floors			C/NC
5.	Staircases • Location • Ventilation • No Services except fire installations • Non-slippery surfaces • Riser (mm) • Tread (mm) • Nosing			C/NC
6.	Continuity of Means of Egress			C/NC
7.	Exit Doorways Clear Width (mm) Height Hardware Direction of opening			C/NC
8.	Capacity of Exits			C/NC
9.	Corridor/Passageways Width (m) Direction of Door Opening			C/NC
10.	Fire Doors Entrance of Stairway Lift Lobby Horizontal Exit			C/NC
11.	Staircase Handrails One Side Two Sides Height Distance from Wall Diameter Balusters			C/NC
12.	Provision for Firefighting Shaft (Fire Tower):- Number of Firefighting Shaft (Fire Tower) Fire Resistance Rating of enclosure Entry door to Tower			C/NC

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	Connectivity Protection of Lobby & Staircase Facilities in Tower • Talk Back • Hose Reel • Internal Hydrant			
13.	Ramp Width (m) Slope Size of landing at top & bottom Handrails on both sides Handrail Projection			
14.	Means of Egress Lighting- 1.Escape lighting luminaries to be sited: a. Within 2 m of each intersection of corridors, b. At exits and at each exit door, c. Within 2 m of each change of direction in the escape route, d. Within 2 m of each staircase so that each flight of stairs receives direct light, e. Within 2 m of any other change of floor level, f. Outside each final exit and close to it, g. Within 2 m of each fire alarm call point, h. Within 2 m of firefighting equipment i. To illuminate exit and safety signs as required by the enforcing authority. 2. Luminance at Floor Level 3. Double Throw Switch			
15.	Exit Signage- 1. Location 2. Directional Sign 3. Size 4. Colour 5. Illumination & Power Supply 6. Floor Indication Board			
16.	Aisle 1. Accessible Route 2. Longitudinal Aisle Width (m) 3. Cross Aisle Width (m)			

	4. Number of Seats from Aisle 5. Railing Height (m)			
17.	Refuge Area 1. Approach 2. Segregation 3. Capacity 4. Location 5. Connectivity 6. Marking 7. Facilities First Aid Box Fire Extinguishers Public Address Speaker Fireman's Talk Back Emergency Lighting Drinking Water Drainage Facility Automatic Sprinkler 8. Level Difference 9. Restriction on uses			

Table-C5: Fire Door Checklist

S. No.	Fire Door Check Points	Yes	No	Remarks, if any
1.	Is Door Frame is securely fastened to wall?			
2.	Is the glazing intact and fire rated?			
3.	Are gazing beads securely fastened and in place?			
4.	Is the door closer functioning properly?			
5.	Is there any sign of leakage of oil from door closer?			
6.	Whether the door leaf is attached to door frame with three hinges?			
7.	Is door leaf closing proper?			
8.	Pull the door by 75 mm and then leave to check if gets latched properly?			
9.	Are intumescent seals continuous, intact and properly attached within the groove?			
10.	Is Hold open device if any, working properly?			
11.	Is door label in place?			

Table-C6: Smoke Control & Exhaust

S. No.	Subject	Required	Provided	Remarks, if any

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1.	Type of Smoke Control & Exhaust System for Areas Above Ground: Natural Cross Mechanical Pressurization			C/NC
2.	Type of System for Areas Below Ground: Natural Cross Mechanical Pressurization			C/NC
3.	Components of Means of Egress Provided with Smoke Control & Exhaust System: Exit Access Corridor Exit Passageways Exit Stairways Fire Tower			C/NC
4.	Pressurization Stairway Lift Shaft Corridor/Passage ways Pressurization Level (outside to protected area) Between Protected and Unprotected Area Activation of system			C/NC
5.	Separation of Means of Egress: Exit Access Exit Passageways Fire Doors			C/NC
6.	Smoke Control and Exhaust System from Sub-Surface Parts of Building: 1. Type of System Non-Ducted Ducted 2. Ducted System Fire Rating of ducts Separate ducts for different levels Exhaust Outlets Location 3. Supply Air Non-Ducted			C/NC

	Ducted 4. Supply Air Duct Height of Supply Air Outlets FR Rating Supply Air Inlets Location Fan Capacity (cfm) 5. No. of Air Changes 6. Activation Mechanism 7. Rating of Exhaust Fans			
7.	Smoke Exhaust from Upper Floors Parts of Building: 1. Type of System Non-Ducted Ducted 2. Ducted System Fire Rating of ducts Exhaust Outlets Location 3. Supply Air Non-Ducted Ducted 4. Supply Air Duct Height of Supply Air Outlets Supply Air Inlets Location Fan Capacity (cfm) 5. No. of Air Changes 6. Activation Mechanism 7. Rating of Exhaust Fans			C/NC
8.	Smoke Exhaust from Atrium Air Changes Fan Capacity Fan Rating Activation			C/NC
9.	Performance Testing: Check Working with activation of automatic detector/MCP/Flow Switches Manual Override Operation			Satisfactory/ Not Satisfactory

Table-C7 Compartmentation

S. No.	Subject	Required	Provided	Remarks, if any
1.	Number of Compartment(s) Basements (s)			C/NC

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	Upper Floor(s)			
2.	Area of Compartment(s)			C/NC
3.	FR Rating			C/NC
4.	Protection of Openings in FR Walls/Fire Barriers			C/NC
5.	Use of "Fire Stop" at the entry & exit of various services to and from the compartment: Ventilation Ducts Electrical Cables/Conduits Water Pipes Gas Pipes Communication Cables			C/NC
6.	Sealing of Service Ducts/Shafts Electrical Plumbing Refuge Chute openings on floors Communication AC Ducts			C/NC
7.	Entry/Exit to Compartment through Fire Door			C/NC
8.	Segregation of Lift Lobby using Fire Door			C/NC
9.	Use of Fire/Smoke Damper in Ducts at entry/Exit to /from Compartment			C/NC
10.	Protection of Escalator Opening/or any other similar opening: Depth of Smoke Barrier Provision of Sprinklers			C/NC
11.	General Comments on compliance & Maintenance			Satisfactory/ Not Satisfactory

Table-C8: Fire Extinguishers

Sr. No.	**Subject**	**Required**	**Provided**	**Remarks, if any**
1	Number of Fire Extinguisher on various floors: • Basement • Ground • First • Second • Special Risk Area			C/NC
2	Suitability of Extinguishers to Risk	Comply with standard/ Not Complied		C/NC

3	Installation ✓ Distance ✓ Siting ✓ Height			C/NC
4	Hydraulic Test			C/NC
5	Discharge Performance			Satisfactory/ Not Satisfactory
6	Life of Extinguishers not more than 10 years			
7	General Maintenance			Satisfactory/ Not Satisfactory

Table-C09: Hose Reel

Sr. No.	Subject	Required	Provided	Remarks, if any
1	Number of Hose Reels/Floor			C/NC
2	Length of Hose Reel Hose			C/NC
3	Shut-Off Nozzle			C/NC
4	Height			C/NC
5	Discharge Performance			Satisfactory/ Not Satisfactory
6	General Maintenance			

Table-C10: Wet Riser/Down Comer

Sr. No.	Subject	Required	Provided	Remarks, if any
1	Type of System ✓ Wet Riser ✓ Down Comer ✓ Yard Hydrants			C/NC
2	Size of Pipe (mm)			C/NC
3	Number of Wet Riser/Down Comer			C/NC
4	Location			C/NC
5	Accessories Hose and/or Hydrant Box Delivery Hoses • Length • Dia. • Couplings Diffuser Branch Landing Valve			C/NC
6	Discharge Performance Most favorable area			Satisfactory/Not Satisfactory

	Unfavorable Area			
7	General Maintenance			C/NC
8	Fire Service Inlet • Location • Pipe Diameter • Number of Inlets • Marking			C/NC

Table-C11: Yard Hydrant

Sr. No.	Subject	Required	Provided	Remarks, if any
1	Number of Yard Hydrants			C/NC
2	Size of Pipe (mm)			C/NC
3	Distance from Building			C/NC
4	Siting near to openings			C/NC
5	Accessories Hose and/or Hydrant Box Delivery Hoses Diffuser Branch Landing Valve			C/NC
5	Discharge Performance Most favorable area Unfavorable Area			Satisfactory/ Not Satisfactory
6	General Maintenance			Satisfactory/ Not Satisfactory

Table-C12: Water Supply

Sr. No.	Subject	Required	Provided	Remarks, if any
1	Water Tank for Fire fighting • Underground Tank Capacity • Overhead Tank Capacity • Whether filled with water			C/NC
2	Access to tank • Underground Tank • Overhead Tank			C/NC

3	Depth of UG Tank			C/NC
4	Draw Out Connection			C/NC
5	Access to Draw Out Connection			C/NC
6	Fire Brigade Collecting Head • Location • Number of Inlets with NRV • Pipe Diameter • Marking			
7	Provision of Manholes			
8	Load Bearing Capacity of Slab if tank is within pathway			
9	Material of Construction			
10	Number of Compartments in tank			
11	General Maintenance			Satisfactory /Not Satisfactory

Table-C13: Automatic Sprinkler System

Sr. No.	Subject	Required	Provided	Remarks, if any
1.	Sprinkler Head Temperature Rating			C/NC
2.	Stiting of Sprinkler Head • Distance of deflector from ceiling • Distance of sprinkler from wall • Distance between sprinklers on branchlines • Distance between branch lines			C/NC
3.	Sprinkler above False Ceiling/Voids, If any			C/NC
4.	Discharge Density (lpm/m^2)			C/NC
5	Provision of Test Valve on each floor			C/NC
6	Installation Control Valve • Number • Location			C/NC
7	No Welding on Pipes less than 50 mm diameter			C/NC
8	Size of Sprinkler Riser			C/NC
9	Flow Switches • Provision • Audio/Visual Indication on ControlPanel			C/NC
10	Sectional Isolation Valve			C/NC

11	Random Test • Test Valve at ICV • Gong Bell Operation • Floor Test Valve • Starting of Jockey • Starting of Main Pump • Starting of Diesel Pump			Performance Satisfactory/ Not Satisfactory

Table-C14: Automatic Detection & Alarm System

Sr. No.	Subject	Required	Provided	Remarks, if any
1.	Zone(s)/Size of Analog			C/NC
2.	Type of detector(s)			C/NC
3.	Siting Requirement			C/NC
4.	Spacing Requirement			C/NC
5.	Detectors in Ducts (if applicable),			C/NC
6.	Alarming Devices*			C/NC
7.	Alarming Device Sound level			C/NC
8.	Control Panel			C/NC
9.	Record of maintenance			C/NC
10.	Random Test • Detector Operation • MCP Operation • Hooter Operation • Operation of Integrated Devices ✓ Smoke Venting ✓ Recorded messages ✓ Fire Damper Operation			Performance Satisfactory/ Not Satisfactory

Table-C15: MOEFA/Talk Back/Public Address System

Sr. No.	Subject	Required	Provided	Marks Allotted	Marks Awarded	Remarks, if any
1.	Manual Call Points ✓ Required/Not Required ✓ Siting ✓ Distance ✓ Indication on ControlPanel ✓ Alarming Device					C/NC

2.	Talk Back System ✓ Each Floor of Building ✓ Lift, if any					C/NC
3.	Public Address System					C/NC
4.	Performance Test: ✓ Manual Call Point ✓ Talk Back System ✓ Public Address System					Performance Satisfactory/ Not Satisfactory

Table-C16: Fire Pump(s) & Fire Pump House

Sr. No.	Subject	Required	Provided	Remarks, if any
1.	Total number of Hydrants* • Yard Hydrants • Internal Hydrants			C/NC
2.	Total Number of Pump Set(s)			C/NC
3.	Provision of Pumps A. Hose Reel B. Sprinkler in Basement C. Wet Riser/Down Comer • Jockey • Main • Standby D. Automatic Sprinkler System • Jockey • Main • Standby			C/NC
4.	Power Supply to pumps			C/NC
5.	Pump for Firefighting (main) • At ground/below ground • Discharge • Head • Shut-off Head • Start Pressure Setting • At Terrace • Discharge • Head • Shut-off Head • Starting Pressure			C/NC

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6.	Pump for Firefighting (Standby)
	• At ground/below ground
	  • Discharge
	  • Head
	  • Shut-off Head
	  Starting Pressure
				C/NC

7.	Pump for Firefighting (Standby)
	• At ground/below ground
	  • Discharge
	  • Head
	  • Shut-off Head
	  • Starting Pressure
				C/NC

8.	Feed to Pumps
	  • Positive
	  • Negative
				C/NC

9.	Pressure at remotest hydrant			C/NC
10.	Performance testing			Satisfactory/Not Satisfactory
11.	General Maintenance			Satisfactory/ Not Satisfactory

Pump House

S. No.	Subject	Required	Provided	Remarks, if any
1.	Location			
2.	Direct Access			
3.	Entry/Exit			
4.	Separation from Rest of Area			
5.	Ventilation			

6.	Spacing of Pumps
	  • From the Walls
	  • Between the Pumps
	  • Pump Panel Protection			

7.	Pump Markings			
8.	Air Release Valve			
9.	Pressure Gauges on each pump			
10.	General Maintenance			

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Table-C17: Details of other Requirements

Sr. No.	Subject	Required	Provided	Remarks,if any
1	Fire Safety Plan			C/NC
2	Periodic Drills			C/NC
3	Training of Personnel			C/NC
4	Fire Safety Officer			C/NC

Table-C18: Maintenance of Fire & Life Safety Systems

Sr. No.	Subject	Remarks, if any
1.	Unobstructed means of access to and around the building	C/NC
2.	Availability of unobstructed, properly marked, well illuminated and protected means of egress.	C/NC
3.	Compartmentation: Fire Door-condition, door closer, gaps, seal etc, sealing of shafts, dampers, etc.	C/NC
4.	Smoke Control and Exhaust System including activation mechanism	C/NC
5.	Automatic detection and alarm including talk back, MCP, Public address system.	C/NC
6.	Condition of fire extinguishers	C/NC
7.	Working of hose reel	C/NC
8.	Automatic sprinkler system: condition of sprinkler heads, valves, ICV, test valves, flow switches, out of sight sprinklers, draw out, fire service inlet etc.	C/NC
9.	Water supply: availability, tank cleanliness, quality of water, hydrants: condition of lugs, washer, approach, control valves, hose box: condition of hose & box, availability of branch etc.	C/NC
10.	Pump & Pump house: general maintenance of pumps, prime movers, valves, pressure gauges, leakage, access to pump house, illumination, markings etc.	C/NC
11.	Up to date fire safety plan, training of personnel, general awareness, conduct of mock drills, and general house- keeping etc.	C/NC

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Details of finding

Inspection result

Signature of Inspector

Inspection Agency Stamp