

WORK UPDATE OF FIRE SAFETY COMMITTEE

TIMELINE OF SCHEDULED FIRE SAFETY COMMITTEE MEETINGS IN JIPMER

S NO	DATE	FIRE SAFETY COMMITTEE MEETINGS
1	03/11/2016	The FIRST meeting of the Core Group Fire Safety and Preparedness Committee at Board room, Admin block
2	15/11/2016	Second Core Group Fire Safety and Preparedness Committee at Board room, Admin block.
3	30/11/2016	FOURTH Meeting of Fire Safety and Preparedness Committee at Institute council room Institute Block.
4	19/12/2016	FIFTH Meeting of Fire Safety and Preparedness Committee: at Institute council room Institute Block
5	21/12/2016	Sixth meeting Fire Safety and Preparedness Committee 21 st December 2016, RCC at Board Room RCC.
6	25/01/2017	Seventh Meeting of Fire safety and preparedness committee - PEVENTIVE FIRE at Director's chamber, Admin Block.
7	02/03/2017	Eight Meeting of Fire safety and preparedness at institute council meeting on update fire safety arrangements at Board room, Admin block
8	18/03/2017	Ninth Meeting of Fire safety and preparedness at board room _Based On Fire Safety Rounds Of SSB
9	01/04/2017	Tenth Meeting of Fire safety and preparedness at director chamber regarding A/C, AHU & lift maintenance – sanitation & housekeeping
10	17/04/2017	Eleventh Meeting of Fire safety and preparedness at SSB – crowd management
11	13/11/2017	Twelveth meeting of fire safety and preparedness committee on Fire safety manual SOP & fire safety orientation program for Block level DMS / Additional Member Secretary FSPC
12	05/12/2017	Thirteenth meeting of fire safety and preparedness committee on full work update of FSPC chaired by Medical Superintendent
13	15/01/2018	Fourteenth meeting of fire safety and preparedness committee on full work update of FSPC chaired by Director JIPMER
14	27/02/2018	Fifteenth Meeting of audit on fire safety recommendations with facility management chaired by Medical Superintendent
15	21/04/2018	Sixteenth FSPC Meeting for fire diagrams approval
16	11/06/2018	Seventeenth FSPC meeting on fire installations Audit meeting
17	09/07/2018	Eighteenth FSPC meeting on EOI fire safety personal outsourcing process & AFSSO recruitment process
18	29/08/2018	19 th FSPC meeting on Fire rated doors & MINI FIRE TENDER
19	10/08/2018	20 th FSPC meeting on Monthly status report – NOC for fire Safety compliance of JIPMER Hospital

20	21/08/ 2018	21 st FSPC meeting on fire installations Audit meeting
21	25/08/2018	22 nd FSPC meeting on work update based on the internal fire audit of Admin block
22	22/10/2018	23 rd FSPC meeting on Monthly status report – NOC for fire Safety compliance of JIPMER Hospital
23	14/12/2018	24 th FSPC meeting on fire installations Audit meeting
24	24/01/2019	25 th FSPC meeting on Monthly status report – NOC for fire Safety compliance of JIPMER Hospital
25	30/01/2019	26 th FSPC review meeting on fire safety audit & feedback report of SSB block
26	15/02/2019	27 th FSPC meeting on new fire installations project under HITES and additional requirements
27	25/02/2019	28 th FSPC review meeting on work progress summary report as submitted by HLL FM
28	29/03/2019	29 th FSPC review meeting on fire safety related works under CPWD electrical & Civil
29	30/03/2019	30 th FSPC meeting on new fire installations project under HITES and additional requirements
30	03/04/2019	31 st FSPC meeting on “Issues related to electrical installations in the Renovated Institute / Hospital block”

The Fire Safety and Preparedness committee had 18 meetings, till April 2019. The major programs being executed by the committee are

1. **Fire safety NOC status and additional fire equipment installations as per NBC part IV life safety**

Provisional safety clearance from Fire Service Department, Government of Puducherry for new buildings (Super specialty block, Women and Child health block, Regional Cancer center, Emergency service department – 3rd, 4th & 5th floor) – **issued on 10/01/2017 and provisional clearance for a period of one year from the date of issuance i.e. up to 10/01/2018.** In addition to the existing fire protection system for the buildings mentioned as above (S.no 1), Fire Service Department, Government of Puducherry had directed **additional installations as per NBC part IV life safety**

 - i. Sprinkler system in EMSD block
 - ii. Pressurized system in the evacuation routes
 - iii. Alternative power supply system
 - iv. Fire doors in all blocks, ICU & OT complex
2. **Upgradation / Modernization of new & existing Fire safety installations in Hospital buildings:**
 - a. **Modernization of the existing old Hospital blocks** for which renovation works are under process & **SAFETY CLEARANCE (NOC)** will be submitted only for after completion of renovation process.
 - b. JIPMER has officially nominated HLL – **HITES** as the **single agency to install Fire Protection System** for entire JIPMER Campus.
 - c. Based on this Comprehensive work proposal is under taken by HLL Infra Tech Services Ltd. (HITES) and being executed in a Phased manner (Phase –I & Phase-II)

- d. **Phase –I** - FPS and FAS works for the Hospital buildings, Administrative building, Hostel buildings, Service Buildings and the Yard works
- e. **Phase-II** - Fire Doors and UPS supported lighting system for the common area and pressurization of fire stair case based on recommendations by the Fire Service Department, Government of Puducherry.

3. **Fire safety installations in newly constructed / renovated / in phase of implementation:**

All buildings in JIPMER have to be inspected by Fire Department and Certified Safe for occupancy. The Fire safety installations in the newer constructions; buildings which are in renovation process; new approved projects, the concerned facility management to whom the work order have been issued by JIPMER Administration – FSPC have directed the Project management to approach local planning authority and the Fire department for obtaining prior permit clearance. Obtaining such clearance from the statutory body is mandatory requirement for issue of NOC from Fire service Department at later stage prior to occupancy.

4. **Renovation work – fire accident**

As per instruction of Director JIPMER **fire**-safety and preparedness Committee conducted Inspection at various places of JIPMER campus. Based on the previous fire accidents during renovation work at Hospital buildings, service building. The FSPC committee clearly documented the risk hazards associated with such fire incidents and there in by submitted letter for safety precautions for implementing HOT WORK PERMIT system.

As per Director Instruction that all such works which requires hot work permit, the concerned facility management should strictly adhere to the system and proper prior communication has to be sent to all concerned. No heating / welding works should be carried out by the facility management without Hot work permit system from FSPC as per the template provided.

5. **Root cause analysis of fire accidents:**

The FSPC committee have conducted and Submitted Root Cause Analysis of fire accident along with safety recommendations and monitoring steps to prevent such fire accident. The STEPS OF RCA performed such as Data Collection, Time Line Creation, Brainstorming Session, The Five Why Analysis, action plan, urgent, long term, monitoring & Steps to be followed in the event of fire. Based on the RCA submitted by the FSPC committee, the concerned Department along with DMS of the block, HLL & CPWD facility management were directed to make necessary arrangements with regard to suggested action plans and submit proposal / compliance report at the earliest

6. **Corrective measures / compliance report to inspection - Work updates on existing firefighting**

system: The FSPC committee has conducted **57 sessions of inspections & submitted 64 reports** to all concerned department heads, DMS / block in-charge / officer in-charge & facility management to undertake urgent corrective measures and submit the compliance report in a time bound manner. With regard to the service details of existing firefighting system the details of the discussion are mentioned below.

- a) urgent compliance report based on the remarks submitted under **AMC visit for fire FA system and FF system**

- b) rectify the **complaints about the fire safety equipments** for entire Hospital, Academic, Admin, Nursing College & hostel complex –
- c) Replacement of defunct fire panel in Hospital buildings
- d) Key box installation by the side of Hydrant cabinet box -
- e) details of SOM for all existing FPS & FAS system
- f) Urgent information on service norms and maintenance related details of all firefighting equipments including Fire extinguishers and submit all necessary documents to FSPC committee
- g) Urgent placement of Yard hydrant system with hose branch, delivery hose with hose cabinet in both the **dump yards**

7. **Urgent measures for maintenance of fire pump room:**

FSPC have inspected the Main Auditorium, EMSD and Admin block fire pump room and submitted inspection report which requires Urgent measures for maintenance of all fire pump room - as the concerned place holds very important Institute functions and National / International conferences, all Administrative sections with records of this institute in JIPMER. Considering the nature of the occupancy and the occupant loads, the Fire pump rooms should be in proper operational order to combat any fire emergencies. Hence the FSPC committee submitted rectification measures in the report to be done immediately for proper functioning of fixed firefighting installations and also insisted on auto **mode** operation of all pump rooms which is under process and also recommended HLL FM to submit proposal for laying new hydrant lines

- 8. **CPWD Handing over to HLL – FAS & FPS in Central library, lecture Theaters, KV school** - for Central library & lecture Theaters, HLL FM have inspected the present fire installations and the pending works related to fire installations is in process of handing over by CPWD to HLL. With regard to the fire extinguishers located in KV school, the HLL will take over FE for service & maintenance through Estate section and undertake necessary action at the earliest.
- 9. **Electrical safety certification along with false roofing electrical installation:** - HLL facility management / CPWD

The above certification process will be executed in a phased manner. In the initial phase, the facility management which are placed in JIPMER, to provide Electrical safety certification for their respective building in a time bound manner as mentioned since fire NOC have to be obtained. In the subsequent phase, through the approval of the competent authority third party audit certification will be processed.

10. **Split A/C under AMC by HLL & CPWD:**

- 11. **Labelling all electrical panels:** In the event of emergency, the working staffs in the Hospital premise should be well aware about electrical source points with in their work areas. In order to enable the above safety issue, the FSPC committees have directed the facility management through proper channel for labelling all electrical panels in their respective buildings and complete the work in a time bound manner with the assistants of electrical wiring diagram. Both HLL & CPWD should submit a copy of the electrical wiring diagram to the JIPMER Engineering division.

- 12. **Power Substations Safety Recommendations:** The POWER substations & Diesel Generators are considered as high fire hazard and the same has been audited by CISF, MHA in the fire safety audit

report. Safety recommendations for POWER substations & Diesel Generators were enlisted and submitted to HLL & CPWD.

13. **Diesel storage safety:** The HSD storage is considered as high fire hazard and the same has been audited by CISF, MHA in the fire safety audit report. Since JIPMER campus is facilitated with HSD storage facility (underground & above ground) safety recommendations were suggested in this regard by the FSPC committee and directed the concerned section / dept. should provide details of fire protection system in HSD tank located inside JIPMER campus based on recommendations and submit compliance report based on safety recommendations at the earliest.
14. **Liquid oxygen explosive license:** JIPMER campus is facilitated with Medical Gas system facility (Liquid Oxygen & Compressed Gas cylinder storage is considered as high fire hazard and the same has been audited by CISF, MHA in the fire safety audit report. Safety recommendations were suggested in this regard by the FSPC committee and the concerned section / dept. should procure Explosive license with site clearance certificate from The Petroleum and Explosives Safety Organization (PESO) for Medical Gas (Oxygen) usage should be available with Department/ Gas plant and the same has to be renewed as per recommendations. Such license should be displayed in the Gas plant itself.
15. **UPS Safety Recommendations:** Many departments, clinical and ancillary service sections have mounted **more than 70 UPS bank** in their work place vicinity. In view of the **accidents** related to Uninterruptible Power Source (UPS) power rooms across JIPMER, FSPC committee submitted feasibility proposal for housing all UPS banks in a single separate room for the respective buildings well away from the working premises by maintaining all standards. Moreover as these UPS batteries are high electrical and fire hazard, should have a proper schedule of maintenance and regular checking works which has to be ensured. FSPC committee suggested for a single common agency/ facility management (CPWD/HLL) respectively may be appointed for maintaining all the UPS bank through proper channel. In this regard, a template regarding the current housing of UPS in respective department was circulated which will facilitate the committee in calculating the feasibility options for the same.
16. **Fire safety Signages HLL facility management:**
 - a. **Exit signages** in all hospital & hostel and other occupied buildings – by HLL
 - b. **Electrical safety signages** – by HLL
 - c. **Hospital block fire escape plan** - by HLL
 - d. **Florescent strips:** Regarding the **florescent strips** on the floor which will aid in emergency evacuation during night time or when there is no visibility light is present. So FSPC committee suggested to start as pilot project in the SSB open ground floor area for which HLL mentioned that they will submit a proposal
 - e. **Exit glow board installation:** by HLL
17. Allotted fire safety recommended civil works under HLL / under CPWD
18. Duplicate Keys of all fire exits to be kept at the nearest ward with the duty nurse as well as the security guard on duty(Long term plan to procure magnetic door locks with unlock authorization with employee ID cards)
19. **Department keys with key box for all Hospital blocks:** All keys of the department offices, stores, all other occupied rooms etc. should be deposited to the security in the Institute block. All keys of departments located in SSB, EMSD, and Hospital & Institute block will be kept at the key box placed in Institute block reception security area. For WCH & RCC all keys for all departments will be

maintained commonly in the main gate of their respectively buildings and the security manning the main gate will be responsible for maintaining security surveillance.

20. **Recruitment of Fire consultant:** JIPMER has recruited ASSISTANT FIRE SAFETY OFFICER (AFSO) on contract basis. RR were framed, the Duties of AFSO like segregation of work areas, roles & responsibilities, Orientation to Hospital premises along with staff training were planned and conducted in a time bound manner.
21. **Placement of Firefighting Team - Fire Guards:** To achieve and maintain the objective of '*safe JIPMER*', as a first step – outsourcing of 'fire safety team' was decided. The duty of fire guard being the first responder during any fire accidents should be a smart and swift response and without undue delay. For this, he should possess sound knowledge in basic fire science / engineering & prevention concepts, functioning & handling of fixed firefighting installation along with rescue techniques. Unlike security guard, the fire guards to be supplied for posting in JIPMER should therefore possess the above mentioned qualification and skills to deliver their duty in a responsible and sensible manner. Moreover the educational qualifications of the fire guards should be in such a way that they should absorb and understand the fire training imparted to them in hospital fire safety scenarios. Such educational qualifications, eligibility standards and adequate man power for fire service were not addressed as per standards in the previous EOI. Considering the above facts, the present system of **combined EOI** for outsourcing security services and fire guards was **bifurcated** and **separate EOI for outsourcing fire safety services** (Man power, Vehicle, Fire man accessories, gadgets, and all essential items required for fire safety services) is in process for a good and valuable model practice. Also list of members in monitoring committee were nominated to monitor all issues related to the recruitment and posting of fire safety services with special emphasis on transparent recruitment of only qualified personal for these duties.
22. **Fire Control room** established in the Ground Floor of JAC Block
As per instruction of Director JIPMER – fire safety and preparedness committee JIPMER is conducting continuous fire safety inspection, audit, training programs & mock drill - preventive, protective and mitigation measures for all hospital staffs, fire guards and security personnel on a routine basis throughout the year. In this connection, a separate office space for Fire Safety and Preparedness Committee JIPMER was created
 - To allot work space for 2 JIPMER fire safety officer
 - To organize meeting with 30 JIPMER fire supervisors & fire guards
 - To organize the above continual awareness and safety training program.
 - To maintain database of all the events & data's of entire hospital related to Fire safety.
 - To conduct regular subcommittee meetingAfter approval of Director JIPMER, Fire Control room established in the Ground Floor of JAC Block to meet the above mentioned objectives.
23. Inspection and Safety Certification of Electrical Wirings and Installations by CPWD, HLL, Engineering Division and Biomedical Engineering to prevent electrical Fires.
24. Clearing of Corridors of furniture for smooth movement of patients and personnel.
25. Clearing of areas outside Fire Exits for smooth movement of occupants.
26. Installation of additional ABC type fire extinguishers in the place of A type extinguishers in all patient care areas
27. Placement of Inflammable signages, Electrical hazard signages, Switch off electrical equipments for every building being installed.
28. Construction of Ramp in old hospital block to move non ambulant patients in the event of Fire.