



GOVERNMENT OF KERALA

Abstract

Disaster Management Department – Hospital Safety - Conduct of Rapid Safety Audit in COVID Hospitals across the State – Orders Issued

DISASTER MANAGEMENT (A) DEPARTMENT

G.O.(Rt)No.414/2021/DMD Dated, Thiruvananthapuram, 13/05/2021

ORDER

Considering the huge demand of hospital resources in the wake of a surge in COVID 19 cases, safety within the hospital premises needs greater emphasis. In the background of fire and oxygen leak in some COVID Hospitals in different states, with increasing footfall, it is critical that COVID Hospitals do not overlook safety aspects with respect to natural or anthropogenic hazards. A Rapid Safety Audit (RSA) appears necessary in all the COVID Hospitals (Government and Private) in the State to ascertain gaps, if any, so that the respective institutions can further take necessary steps to better hospital safety and meet safety standards.

Therefore, in exercise of the powers conferred under section 20 read with sections 24 and 65 of the Disaster Management Act, 2005, the undersigned, in the capacity as the Chairman, State Executive Committee of the Kerala State Disaster Management Authority, hereby issue the following orders with immediate effect:

1. A rapid safety audit of COVID Hospitals (Private and Government, including Co-operative and ESI COVID Hospitals)) across the State shall be conducted to identify gaps, if any, in hospital safety. The respective institutions, shall thereafter, take necessary steps to bridge the gaps to better hospital safety and meet safety standards.
2. The Rapid Safety Audit shall be conducted based on the formats developed by the Kerala State Disaster Management Authority (KSDMA) for the purpose [*Guidance Note, Rapid Safety Audit Formats (part I and part II)*] appended to this order.
3. Audits Teams shall be constituted by the respective District Disaster Management Authorities (DDMAs) in the following manner so as to complete the rapid safety audit of all COVID Hospitals in the district in a week's time:
 - i. One representative from Revenue/Disaster Management Department (Team Leader),
 - ii. One representative from Fire and Rescue Department,

- iii. One representative from Health Department,
- iv. One representative from LSGD (Engineering Wing) / PWD,
- v. A competent official from the Electrical Inspectorate in the district
- vi. One representative of the hospital audited (person responsible for maintenance / management)*

*The Medical Superintendents of the respective Private COVID Hospitals (including Co-operative Hospitals) shall render necessary assistance for the rapid safety audit

4. The checklist has broadly two sections,

- a) Basic information related to the hospital (truthful and 'as is') which can be filled by the staff of the hospital prior to the audit
- b) Safety Information which have to be filled by the audit team themselves after physical verification

5. The Audit Teams shall submit duly filled check lists to the Chairperson DDMA within 2 days of audit, highlighting the immediate steps and suggested medium /long term steps to be undertaken to prevent a hazardous situation within the COVID hospital, with a copy to the respective DMO (Health).
6. Based on the findings of the rapid safety audit and associated inputs, the Department of Health and Family Welfare in the case of Government COVID Hospitals of the State, ESI in the case of ESI Hospitals and the respective managements in the case of Co-operative and Private Hospitals shall take steps (immediate, medium term and long term) to bridge the gaps so that hospital safety is improved to meet safety standards within a reasonable time limit.
7. The Rapid Safety Audit exercise is exempted from lockdown restrictions. COVID19 Protocol should be followed during the audit exercise. Patient care shall not be hindered during the audit process.
8. Though self-explanatory, the KSDMA may arrange online trainings based on need for the Audit Teams and Hospital Managers regarding the conduct of the above Rapid Safety Audit.
9. The above RSA pertains to COVID Hospital settings. In the case of *ad hoc* COVID Second Line Treatment Centers (CSLTCs) and some COVID First Line Treatment Centers (CFLTCs), especially where Oxygen beds are being arranged, the DDMA shall locally assess the *ad hoc* arrangements and ensure patient safety in such centers. Taking basic fire & electrical safety precautions and ensuring adequate ventilation and air exchanges are of primary importance, *inter alia*.

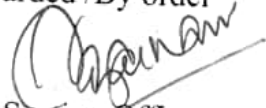
(By order of the Governor)
DR. V P JOY
CHIEF SECRETARY

To:

Land Revenue Commissioner
Commissioner, Disaster Management
All District Collectors

Health Department
Home department
LSG department
Public Works department
Power department
The Director, Information & Public Relations Department (Web & New
Media) Copy to
Special Secretary to Chief Secretary
PA to Additional Chief Secretary, Disaster Management

Forwarded /By order :


Section Officer

Annexure

Guidance Note

To The Checklist For

Rapid Safety Audit Of Covid-19-Specific Facilities In Hospitals

Aim:

The checklist aims to assess the safety of COVID-19-specific facilities in COVID-19 hospitals of the State.

Objectives:

1. To take stock of the present conditions in the COVID-19-specific facilities of COVID-19 hospitals.
2. To identify gaps in the existing infrastructure and thereby facilitate decision making for or augmenting the safety in hospitals.

Scope and Limitations:

1. The checklist is intended for buildings and utilities involved in COVID-19 care only

and not the entire hospital complex.

2. The checklist lays its focus on assessing the safety from the perspective of following hazards only:
 - a. Fire
 - b. Oxygen leakage and associated eventualities
 - c. Electrical malfunctioning and associated eventualities
 - d. Floods
 - e. Landslides

Description of the checklist:

The checklist consists of two parts, namely,

Part I. General Information of the Hospital

Part II. Safety Checklist

Part I consists of 41 questions about the location, contact details, rapid response team, staff details, COVID-19-specific facilities and their capacities etc. whereas Part II consists of 68 questions under the following sections:

- a. Fire safety
- b. Multi-hazard preparedness
- c. Utilities- Electricity
- d. Utilities- Water
- e. Utilities- Oxygen
- f. Communication facilities

Instructions to use the checklist:

1. The intention of this safety audit needs to be clearly communicated to the hospitals as well as to the auditors. The audit is being carried out in the context of multiple incidents of fire and oxygen leakage and subsequent loss of lives reported from COVID hospitals in different parts of India. The checklist intends not to criticise or find faults but to recognize areas of improvement so as to strengthen the state's efforts in improving hospital safety and containment of COVID-19 by preparing for any eventuality.
2. Part I of the checklist may be filled by a representative of the hospital prior to the physical audit. This form may be administered via google forms prior to the Part II audit because the data from Part I are beneficial for the easy conduct of Part II audit.
3. Part II of the checklist is to be filled by a team of external auditors, preferably, comprising of the following officials:

- a. Representative from Revenue – Disaster Management Dept.
- b. Representative from LSG Engineering/ PWD
- c. Representative from Fire and Rescue Services
- d. Representative from Health Department
- e. A competent official of the Electrical Inspectorate in the District
- f. Representative of the concerned hospital (preferably Maintenance Officer) The form is to be filled after a rapid yet careful inspection at the hospital. As deemed necessary, data may be collected through

- interviews with medical, para-medical and non-medical
- staff, checking of hospital records, and on-site inspection of
- various facilities.

4. All the questions in the checklist are objective. Wherever applicable, tick mark (✓) is to be used for answers. Space has also been provided for adding remarks, if any.
 5. It is mandatory for the auditing team to take due precautions during the inspection and follow COVID-19 protocols of the hospital without fail. The hospital management is expected to facilitate the smooth conduct of the audit. The audit exercise shall not hinder patient care at any time.
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**RAPID SAFETY AUDIT OF COVID-19 SPECIFIC FACILITIES IN HOSPITALS
PART II SAFETY CHECKLIST**

Hospital Name and District:

Distance to nearby fire station:

Distance to nearby hospital:

FIRE SAFETY

1	Does the hospital have a dedicated department for managing fire and safety? Remarks:	Yes	No
2	Is an Environment, Health & Safety (EHS) officer available at the hospital? Remarks: Name & Contact details:	Yes	No
3	Is Fire Emergency Plan (Code Red) available and communicated? Remarks:	Yes	No
4	Has the Rapid Response Team (RRT) been formed? Remarks:	Yes	No
5	Have the RRT been regularly trained? Remarks: Check training records	Yes	No
6	Is the nodal officer for handling emergencies available 24 hours? Remarks: Designations in each shift:	Yes	No
7	Is Fire sprinkler system available in all areas and is inspected (internally/externally) periodically? Remarks: Date of last inspection:	Yes	No
8	Are manual call points (MCP) available in all floors and operational? Remarks:	Yes	No
9	Are adequate number and types of fire extinguishers available in all floors? Remarks:	Yes	No
10	Is adequate firefighting system available- hydrant valves, hoses, monitors, etc.? Remarks:	Yes	No
11	Are periodical fire trainings (fire drills) and mock drills conducted? Remarks: Last date of mock drill:	Yes	No
12	Is fire NOC available? Remarks: Date of expiry:	Yes	No
13	Is adequate pressure maintained in fire hydrant and sprinkler pipelines (min of 5 Bar)? Remarks:	Yes	No
14	Is adequate water level maintained in fire water reservoir? Mention level Remarks: Level:	Yes	No
15	Are inspections tag/stickers available for fire extinguishers (mention frequency of inspection)? Remarks:	Yes	No

16	Is adequate training given on usage of fire extinguishers to all staffs? Remarks: Check training records	Yes	No
17	Availability of Automatic fire detection system (smoke detectors) and alarm system (MCP's, Annunciator panel, siren), and is in working condition? Remarks:	Yes	No
18	Is accessibility of all firefighting equipment (fire extinguisher, hydrant valves, hose reels, etc.) ensured? Remarks:	Yes	No
19	Are all combustible materials segregated and stored away from ignition sources? Remarks:	Yes	No
20	Does the basement have automatic sprinkler systems? Remarks:	Yes	No
21	Are the basements free from combustible materials (check for any unauthorized storages, position of DG, etc.)? Remarks:	Yes	No
22	Are the Emergency Exits and Evacuation route accessible? Remarks:	Yes	No
23	Are access roads available throughout the hospital building to facilitate the fire tender? Remarks: Width of road:	Yes	No
24	Is the width of the main entrance gate not less than 4.5m? (min 4.5m) Remarks: Mention width:	Yes	No
25	Are emergency evacuation route plans displayed prominently? Remarks:	Yes	No
26	Is every exit and access to every exit free from all obstructions? Remarks:	Yes	No
27	Are the emergency exit signs clearly visible (preferably illuminated) in each floors ? Remarks:	Yes	No
28	Does the staircase have a width of at least 2m? Remarks:	Yes	No
29	Is width of the corridor and passage greater than or equal to 2.4m? Remarks:	Yes	No
MULTI-HAZARD PREPARDNESS			
30	Is the building located in Flood Prone area ? Remarks:	Yes	No

31	Is High Flood Level (HFL) marked and visible ?	Yes	No
	Remarks:		
32	Is the building located in a Hilly Terrain ?	Yes	No
	Remarks:		
33	Do you have designated Assembly points marked?	Yes	No
	Remarks:		
34	Are Critical facilities (OT, ICU, etc.), chemical storage and Essential Supplies being stored on an elevated platform or above the HFL ?	Yes	No
	Remarks:		
35	Is procedure for movement of patients from critical facilities, in case of an emergency (fire, flood, landslide, oxygen leak/shortage) available ?	Yes	No
	Remarks:		
UTILITIES- ELECTRICITY (+ * Electrical Inspectorate to append their remarks to this format as a separate sheet)			
36	Is Diesel Generator (DG) facility available?	Yes	No
	Remarks: No of DGs present:		
37	Capacity of each generator:	1	2
	Remarks:	3	4
38	Is local diesel storage tank (for Diesel Generator) properly protected, and appropriate fire extinguisher provided?	Yes	No
	Remarks:		
39	Are all generators kept above HFL (High Flood Level)?	Yes	No
	Remarks:		
40	Does the fuel storage facility for generators ensure a back-up for 3 days?	Yes	No
	Remarks: Capacity of the storage tank:		
41	Do the ICUs and OTs have inverter back-up?	Yes	No
	Remarks:		
42	Are statutory electrical inspection certificates available (Earth certificates, power quality etc.)?	Yes	No
	Remarks:		
43	Ensure all electrical equipment are capable for continuous duty (Continuous duty, Short time duty and Intermittent duty)?	Yes	No
	Remarks:		
44	Has an energy audit been conducted?	Yes	No
	Remarks:		
UTILITIES- WATER			
45	Source of water supply.	Internal:	External:
	Remarks:		
46	Is alternate water supply available?	Yes	No
	Remarks: Source:		
47	Water reserves for hospital services and functions (minimum 3 days)	Yes	No
	Remarks: If not, how many days?		
48	Is safe and potable water available in times of emergency?	Yes	No
	Remarks: Source:		
UTILITIES- OXYGEN			
49	Is the location of storage area for medical gases adequately ventilated?	Yes	No
	Remarks:		
50	Type of oxygen storage and its capacity	Bulk storage:	Bottled oxygen:
	Remarks:		

51	Are trolleys available for movement of oxygen cylinders?	Yes	No		
	Remarks:				
52	Are caps available for oxygen cylinders in storage areas?	Yes	No		
	Remarks:				
53	Is the staff adequately trained in handling of oxygen cylinders?	Yes	No		
	Remarks:				
54	Are all oxygen cylinders stored upright?	Yes	No		
	Remarks:				
55	For how many hours will the oxygen reserve last?	24 hours	48 hours	72 hours	72 and more
	Remarks:				
56	Does the oxygen plant have a competent operator who can handle emergencies such as leakage?	Yes	No		
	Remarks:				
57	Is automatic gas monitoring system available?	Yes	No		
	Remarks:				
58	Any open ignition sources (e.g.: kitchen) and inflammable material storage (e.g. diesel for DG) nearby the oxygen storage area?	Yes	No		
	Remarks:				
59	Are identification valves for different gases available and colour coding of pipelines been followed and displayed?	Yes	No		
	Remarks:				
60	Has leakage audit been conducted for gas pipelines?	Yes	No		
	Remarks:				
61	Has newly laid oxygen pipelines undergone inspection?	Yes	No		
	Remarks: Certificate:				
62	Is a bio-medical engineer available at the hospital?	Yes	No		
	Remarks:				

COMMUNICATION SYSTEMS

63	Is a Public Addressing System (PAS) available? Remarks:	Yes	No
64	Does the PAS have a power back-up? Remarks:	Yes	No
65	Are all employees aware of the in-house emergency contact number of the nodal officer? Remarks:	Yes	No
66	Are all external emergency contact numbers displayed prominently? Remarks:	Yes	No
67	Is an alternative mode of communication available in case of the failure of existing communication system? Remarks:	Yes	No
68	Is there a Common Alert Mechanism for natural disasters (flood, landslide, earthquake, etc.) affecting the hospital? Remarks:	Yes	No

ABBREVIATIONS

HFL	High Flood Level
OT	Operation Theatre
ICU	Intensive Care Unit
RRT	Rapid Response Team
MCP	Manual Call Point
NOC	No Objection Certificate
DG	Diesel Generator
PAS	Public Addressing System
EHS	Environment, Health & Safety

Overall Remarks by the auditing team / Include any critical concerns to be addressed immediately (including that of Electrical Inspectorate)

Any other recommendations (if any)

Auditing Team

Name of Auditor	Department	Contact Number	Signature

Date of the Audit	
Audit Report Submitted on:	

RAPID SAFETY AUDIT OF COVID-19 SPECIFIC FACILITIES IN HOSPITALS

Hospital Name and District:

Distance to nearby fire station:

Distance to nearby hospital:

1	Is the building located in Flood Prone area ?	Yes	No
Remarks:			
2	Is High Flood Level (HFL) marked and visible ?	Yes	No
Remarks:			
3	Is the building located in a Hilly Terrain ?	Yes	No
Remarks:			
4	Is there a Common Alert Mechanism for natural disasters (flood, landslide, earthquake, etc.) affecting the hospital?	Yes	No
Remarks:			
5	Are Critical facilities (OT, ICU, etc.), chemical storage and Essential Supplies being stored on an elevated platform or above the HFL ?	Yes	No
Remarks:			
6	Is procedure for movement of patients from critical facilities, in case of an emergency (fire, flood, landslide, oxygen leak/shortage) available ?	Yes	No
Remarks:			
7	Does the hospitals have a dedicated department for managing fire and safety?	Yes	No
Remarks:			
8	Is an Environment, Health & Safety (EHS) officer available at the hospital?	Yes	No
Remarks:			
9	Is Fire Emergency Plan (Code Red) available and communicated?	Yes	No
Remarks:			
10	Has the Rapid Response Team (RRT) been formed?	Yes	No
Remarks:			

11	Have the RRT been regularly trained?	Yes	No
Remarks: Check training records			
12	Is the nodal officer for handling emergencies available 24 hours?	Yes	No
Remarks: Designations in each shift:			
13	Is Fire sprinkler system available in all areas and is inspected (internally/externally) periodically?	Yes	No
Remarks: Date of last inspection:			
14	Are manual call points (MCP) available in all floors and operational?	Yes	No
Remarks:			
15	Are adequate number and types of fire extinguishers available in all floors?	Yes	No
Remarks:			
16	Is adequate firefighting system available- hydrant valves, hoses, monitors, etc.?	Yes	No
Remarks:			
17	Are periodical fire trainings (fire drills) and mock drills conducted?	Yes	No
Remarks: Last date of mock drill:			
18	Is fire NOC available?	Yes	No
Remarks: Date of expiry:			
19	Is adequate pressure maintained in fire hydrant and sprinkler pipelines (min of 5 Bar)?	Yes	No
Remarks:			
20	Is adequate water level maintained in fire water reservoir? Mention level	Yes	No

	Remarks: Level:		
21	Are inspections tag/stickers available for fire extinguishers (mention frequency of inspection)?	Yes	No
	Remarks:		
22	Is adequate training given on usage of fire extinguishers to all staffs?	Yes	No
	Remarks: Check training records		
23	Availability of Automatic fire detection system (smoke detectors) and alarm system (MCP's, Annunciator panel, siren), and is in working condition?	Yes	No
	Remarks:		
24	Is accessibility of all firefighting equipment (fire extinguisher, hydrant valves, hose reels, etc.) ensured?	Yes	No
	Remarks:		
25	Are all combustible materials segregated and stored away from ignition sources?	Yes	No
	Remarks:		
26	Does the basement have automatic sprinkler systems?	Yes	No
	Remarks:		
27	Are the basements free from combustible materials (check for any unauthorized storages, position of DG, etc.)?	Yes	No
	Remarks:		
28	Are the Emergency Exits and Evacuation route accessible?	Yes	No
	Remarks:		
29	Are access roads available throughout the hospital building to facilitate the fire tender?	Yes	No
	Remarks: Width of road:		
30	Is the width of the main entrance gate not less than 4.5m? (min 4.5m)	Yes	No
	Remarks: Mention width:		

	Remarks: Mention width:				
31	Are emergency evacuation route plans displayed prominently?			Yes	No
	Remarks:				
32	Are every exits and access to every exits free from all obstructions?			Yes	No
	Remarks:				
33	Are the emergency exit signs clearly visible (preferably illuminated) in each floors ?			Yes	No
	Remarks:				
34	Does the staircase have a width of at least 2m?			Yes	No
	Remarks:				
35	Is width of the corridor and passage greater than or equal to 2.4m?			Yes	No
	Remarks:				
36	Is Diesel Generator (DG) facility available?			Yes	No
	Remarks: No of DG's present:				
37	Capacity of each generator:	1	2	3	4
	Remarks:				
38	Is local diesel storage tank (for Diesel Generator) properly protected, and appropriate fire extinguisher provided?			Yes	No
	Remarks:				
39	Are all generators kept above HFL (High Flood Level)?			Yes	No
	Remarks:				
40	Does the fuel storage facility for generators ensure a back-up for 3 days?			Yes	No
	Remarks: Capacity of the storage tank:				
41	Do the ICUs and OTs have inverter back-up?			Yes	No
	Remarks:				
42	Are statutory electrical inspection certificates available (Earth certificates, power quality etc.)?			Yes	No
	Remarks:				
43	Ensure all electrical equipment are capable for continuous duty (Continuous duty, Short time duty and Intermittent duty)?			Yes	No
	Remarks:				
44	Has an energy audit been conducted?			Yes	No
	Remarks:				
45	Source of water supply.	Internal:	External:		
	Remarks:				

46	Is alternate water supply available?	Yes	No		
	Remarks: Source:				
47	Water reserves for hospital services and functions (minimum 3 days)	Yes	No		
	Remarks: If not, how many days?				
48	Is adequately safe and potable water available in times of emergency?	Yes	No		
	Remarks: Source:				
49	Is the location of storage area for medical gases adequately ventilated?	Yes	No		
	Remarks:				
50	Type of oxygen storage and its capacity	Bulk storage:	Bottled oxygen:		
	Remarks:				
51	Are trolleys available for movement of oxygen cylinders?	Yes	No		
	Remarks:				
52	Are caps available for oxygen cylinders in storage areas?	Yes	No		
	Remarks:				
53	Is the staff adequately trained in handling of oxygen cylinders?	Yes	No		
	Remarks:				
54	Are all oxygen cylinders stored upright?	Yes	No		
	Remarks:				
55	For how many hours will the oxygen reserve last?	24 hours	48 hours	72 hours	72 and more
	Remarks:				
56	Does the oxygen plant have a competent operator who can handle emergencies such as leakage?	Yes	No		
	Remarks:				
57	Is automatic gas monitoring system available?	Yes	No		
	Remarks:				
58	Any open ignition sources (e.g.: kitchen) and inflammable material storage (e.g. diesel for DG) nearby the oxygen storage area?	Yes	No		
	Remarks:				
59	Are identification valves for different gases available and colour coding of pipelines been followed and displayed?	Yes	No		
	Remarks:				
60	Has leakage audit been conducted for gas pipelines?	Yes	No		
	Remarks:				

	Remarks:		
61	Has newly laid oxygen pipelines undergone inspection?	Yes	No
	Remarks: Certificate:		
62	Is a bio-medical engineer available at the hospital?	Yes	No
	Remarks:		
63	Is a Public Addressing System (PAS) available?	Yes	No
	Remarks:		
64	Does the PAS have a power back-up?	Yes	No
	Remarks:		
65	Are all employees aware of the in-house emergency contact number of the nodal officer?	Yes	No
	Remarks:		
66	Are all external emergency contact numbers displayed prominently?	Yes	No
	Remarks:		
67	Is an alternative mode of communication available in case of the failure of existing communication system?	Yes	No
	Remarks:		
68	Do you have designated Assembly points marked?	Yes	No
	Remarks:		

ABBREVIATIONS	
HFL	High Flood Level
OT	Operation Theatre
ICU	Intensive Care Unit
RRT	Rapid Response Team
MCP	Manual Call Point
NOC	No Objection Certificate
DG	Diesel Generator
PAS	Public Addressing system
EHS	Environment, Health & Safety

Auditing Team			
Name of Auditor	Department	Contact Number	Signature

RAPID AUDITING CHECKLIST FOR COVID-19 HOSPITALS

1	Is the building located in Flood Prone area?	Yes	No	Remarks
2	Is High Flood Level (HFL) marked and visible?	Yes	No	Remarks
3	Is the building located in a Hilly Terrain?	Yes	No	Remarks
4	Is there a Common Alert Mechanism (code orange) in case of any natural disasters (flood, landslide, earthquake, etc.)?	Yes	No	Remarks
5	Are Critical facilities (OT, ICU, etc.), Chemical storage and Essential Supplies being stored on an elevated platform or above the HFL?	Yes	No	Remarks
6	Is procedure for movement of patients from critical facilities, in case of an emergency (fire, flood, landslide, oxygen leak/shortage) available?	Yes	No	Remarks
7	Do the hospitals have a dedicated department for managing fire and safety?	Yes	No	Remarks
8	Is an Environment, Health & Safety (EHS) officer available at the hospital?	Yes	No	Remarks
9	Is Fire Emergency Plan (Code Red) available and communicated?	Yes	No	Remarks
10	Has the Rapid Response Team (RRT) been formed?	Yes	No	Remarks
11	Have the RRT been regularly trained?	Yes	No	Check training records
12	Is the nodal officer for handling emergencies available 24 hours?	Yes	No	Designations in each shift:
13	Is local diesel storage tank properly protected, and appropriate fire extinguisher provided?	Yes	No	Remarks
14	Is adequate fire detection system (smoke detectors) available?	Yes	No	Remarks
15	Are manual call points (MCP) available in all floors?	Yes	No	Remarks
16	Are adequate numbers of fire extinguishers available in all floors?	Yes	No	Remarks
17	Is adequate firefighting system available- hydrant valves, hoses, monitors, etc.	Yes	No	Remarks
18	Are periodical fire trainings and mock drills conducted?	Yes	No	Last date of mock drill:
19	Is fire NOC available?	Yes	No	Date of expiry:
20	Adequate pressure in fire hydrant and sprinkler pipelines (min of 5 Bar).	Yes	No	Remarks

21	Adequate water level in fire water reservoir.	Yes	No	Level:	
22	Fire extinguishers available in adequate numbers, types and is in good condition	Yes	No	Remarks	
23	Inspections tag/stickers available (mention frequency of inspection)	Yes	No	Remarks	
24	Adequate training on usage of fire extinguishers for staff	Yes	No	Remarks	
25	Availability of Automatic fire detection system (smoke detectors) and alarm system (MCP's, Annunciator panel, siren), and is in working condition	Yes	No	Remarks	
26	Ensure accessibility of all firefighting equipment (fire extinguisher, hydrant valves, hose reels, etc.)	Yes	No	Remarks	
27	All combustible materials are segregated and stored away from ignition sources	Yes	No	Remarks	
Does the basement have automatic sprinkler systems?		Yes	No	Remarks	
29	Are the basements free from combustible materials (check for any unauthorized storages, position of DG, etc.)	Yes	No	Remarks	
30	Are the Emergency Exits and Evacuation route Accessible	Yes	No	Remarks	
31	Are access roads available throughout the hospital building to facilitate the fire tender?	Yes	No	Width of road:	
32	Is the width of the entrance not less than 4.5m	Yes	No	Remarks	
33	Are the roads terminated in dead ends inside the hospital premises?	Yes	No	Remarks	
34	Are every exits and exit access are free of all obstructions?	Yes	No	Remarks	
35	Are the exits signs clearly visible (preferably illuminated) in each floors?	Yes	No	Remarks	
36	Does the staircase have a width of at least 2m?	Yes	No	Remarks	
37	Is width of the corridor and passage greater than or equal to 2.4m?	Yes	No	Remarks	
38	Is generator facility available?	Yes	No	No of DG's present:	
39	Capacity of each generator	1	2	3	4
40	Are all generators kept above HFL (High Flood Level)?	Yes	No	Remarks	

41	Does the fuel storage facility for generators ensure a back-up for 3 days?	Yes	No	Capacity of the storage tank:
42	Are statutory electrical inspection certificates available (Earth certificates, power quality etc.)?	Yes	No	Remarks
43	Ensure all electrical equipment are capable for continuous duty (Continuous duty, Short time duty and Intermittent duty)	Yes	No	Remarks
44	Has an energy audit been conducted?	Yes	No	Remarks
45	Source of water supply.	Internal:		External:
46	Is alternate water supply available?	Yes	No	Source:
47	Water reserves for hospital services and functions (minimum 3 days)	Yes	No	If not, how many days?
48	Is adequately safe and potable water available in times of emergency?	Yes	No	Source:
49	Is the location of storage area for medical gases adequately ventilated?	Yes	No	Remarks
50	Type of oxygen storage and its capacity	Bulk storage:		Bottled oxygen:
51	Are trolleys available for movement of oxygen cylinders?	Yes	No	Remarks
52	Are caps available for oxygen cylinders in storage areas?	Yes	No	Remarks
53	Is the staff adequately trained in handling of oxygen cylinders?	Yes	No	Remarks
54	Are all cylinders are stored upright?	Yes	No	Remarks

For how many hours will the oxygen reserve last?	24 hours	48 hours	72 hours	72 and more
Does the oxygen plant have a competent operator who can handle emergencies such as leakage?	Yes	No	Remarks	
57	Is automatic gas monitoring system available?	Yes	No	Remarks
Any open ignition sources (e.g.: kitchen) and inflammable material storage (e.g. diesel for DG) nearby?	Yes	No	Remarks	
Are identification valves available for different gases and colour coding of pipelines been followed and displayed?	Yes	No	Remarks	
Has leakage audit been conducted for pipelines?	Yes	No	Remarks	
Has newly laid oxygen pipelines undergone inspection?	Yes	No	Certificate:	
Is a bio-medical engineer available at the hospital?	Yes	No	Remarks	
Is a Public Addressing System (PAS) available?	Yes	No	Remarks	
Does the PAS have a power back-up?	Yes	No	Remarks	
Are all employees aware of the in-house emergency contact number of the nodal officer?	Yes	No	Remarks	
Is all external emergency contact numbers displayed prominently?	Yes	No	Remarks	
Is an alternative mode of communication available in case of the failure of existing communication system?	Yes	No	Remarks	