

Office of the Deputy Director, Fire & Emergency

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WALL ONE AVIAN CAR PORT

## The Principal, Govt. Boy: Degree College, Khanabal Anantnag.

No: DDF&ES-A/F-Prv/2023/ 696-701

Dated: - 03.2023

Services.

Subject:-Fire Safety Audit in Life Line Buildings of District Anantnag. Refnce:-Directorate of Fire & Emergency Services, J&K, Letter No. DF&ES/BUILOFA/42021-02(CC 107346) dated 16.03.2023.

Sir,

Kindly refer to this office letter No. under reference regarding the subject cited above. In this context, the Department deputed a team of experts headed by Assistant Director (Prob.) Fire & Emergency Services Command Anantnag to conduct Fire Safety Audit of Govt. Boys Degree College Khanabal Anantnag. The team after observation recommended the Fire Safety and precautionary measures to life line buildings.

It is, as such, requested that the recommendations given at Annexure- A to this letter may kindly be implemented at an earliest, so that the frequency of fire incidents is restricted, besides ensuring safety of precious lives and valuable property.

Yours faithfully, Deputy Director,

Fire & Emergency Services, Command Anantnag.

Copy to the:-

- 1. Principal Secretary to Govt. Higher Education department, J&K.
- 2. Director Fire & Emergency Services J&K, Jammu/Srinagar.
- 3. Director Colleges, J&K.
- 4. Deputy Commissioner Anantnag.
- 5. Joint Director Fire & Emergency Services Kashmir Range Srinagar.

## Annexure-A

## A. Observations.

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Name of the Govt. Office Institute.	Building Particulars	Existing Fire Safety Measures
Boys Degree College Khanabal Anantnag.	<ul> <li>CGI sheet roofed double storeyed building with slab over both floors has one staircase of 1.68 mtr. width. used as central library.</li> <li>CGI sheet roofed double storeyed building with slab over ground floor and wooden ceiling over ceiling over first floor has one staircase of 1.21 mtr. width. The ground floor is used for reading hall whileas first floor used as conference hall.</li> <li>CGI sheet roofed double storeyed building with slab over ground floor and wooden ceiling over first floor has one staircase of 0.91 mtr. width used to accommodate Bio technology department.</li> <li>CGI sheet roofed double storeyed building with slab over ground floor and ply ceiling over first floor has one staircase of 1.52 mtr. width used to accommodate Chemistry department.</li> <li>CGI sheet roofed double storeyed building with slab over ground floor and ply ceiling over first floor has one staircase of 1.37 mtr. width used to accommodate Sericulture &amp; Zoology Lab.</li> <li>CGI sheet roofed double storeyed building with slab over ground floor and ply ceiling over first floor has one staircase of 1.07 mtr. width used to accommodate Sericulture &amp; Zoology Lab.</li> <li>CGI sheet roofed double storeyed building with slab over ground floor and ply ceiling over first floor has one staircase of 1.07 mtr. width used to accommodate Botany department.</li> <li>CGI sheet roofed double storeyed building with slab over ground floor and ply ceiling over first floor has one staircase of 1.07 mtr. width used to accommodate Botany department.</li> <li>CGI sheet roofed double storeyed building with slab over ground floor and ply ceiling over first floor has one staircase of 1.07 mtr. width used to accommodate Botany department.</li> </ul>	10 Non functional ABC type Fire Extinguishers of 6 kg capacity are installed in the college buildings.

A.

and wooden ceiling over first floor has one staircase of 3.05 mtr. width used as lecture halls (Block C).

- CGI sheet roofed double storeyed building with slab over ground floor and wooden ceiling over first floor has one staircase of 1.52 mtr. width used as department of Physics.
- •CGI sheet roofed double storeyed building with slab over both floors has one staircase of 2.13 mtr. width used for Geography and Geology section.
- 03 CGI sheet roofed double storeyed buildings annexed with each through 1.37 mtr. wide staircases connecting Psychology, Indra Museum to lecture hall building with another staircase of 1.37 mtr. width connecting another lecture hall building has slab over both floors (Block B).
- •CGI sheet roofed double storeyed building with slab over both floors has one staircase of 1.82 mtr. width is used by department of electronics and commerce.
- •CGI sheet roofed double storeyed building with slab over both floors has one staircase of 0.91 mtr. width Examination Block.
- •CGI sheet roofed double storeyed building with slab over ground floor and wooden ceiling over first floor has two staircases of 1.52 mtr. width each. (Humanity Block)
- •CGI sheet roofed double storeyed building with slab over ground floor and wooden ceiling over first floor has single staircase of 1.52 mtr. width (Physics Department)
- Decades old, heritage building CGI sheet roofed single storeyed building with wooden ceiling used as administrative block and department of English.
- CGI sheet roofed single storeyed building with ply ceiling (Statistics & Journalism Mass communication.

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	<ul> <li>CGI sheet rooted single storeyed building with wooden ceiling used as IGNO study centre.</li> </ul>	
	<ul> <li>CGI sheet roofed single storeyed building with wooden ceiling used as Director Physical Education Office.</li> </ul>	
	<ul> <li>CGI sheet roofed single storeyed building with ply ceiling (Canteen).</li> </ul>	
	<ul> <li>CGI sheet roofed single storeyed building with wooden ceiling used to accommodate gardener staff.</li> </ul>	
	<ul> <li>CGI sheet roofed single storeyed building with wooden ceiling used as store.</li> </ul>	
	<ul> <li>CGI sheet roofed single storeyed building with wooden ceiling used as Yoga centre.</li> </ul>	
	One iron made single storeyed building with iron truss used as store.	
	building with wooden ceiling used as stationery store.	

## Fire Preventive/ Protective and other Precautionary measures.

- 1. Two 9 litre water expelling extinguishers, for every 200 m<sup>2</sup> of floor area with minimum 4 extinguishers per floor. The extinguishers should be so located as to be available within 15 m radius.
- 2. One 4.5 kg capacity carbon dioxide or one 3 kg capacity clean agent extinguisher for every 100 m<sup>2</sup> of floor area with minimum two extinguishers so located so as to be available within 10 m radius. O3 Mechanical Foam type Fire Extinguishers of 9 liters capacity shall be installed near the Gen set/kitchen facilities if any.
- 3. Extinguishers shall be installed and maintained in accordance with IS 2190.
- 4. Hose Reel Hose shall be installed in each floor of all the buildings having more than one storey. The Hose Reel Hose shall be provided with pressurized water from 20,000 liters capacity terrace tanks exclusively for firefighting each in all the buildings through booster pumps or from the underground water reservoir through suitable fire pump/s as per the relevant standards/code in vogue. Their shall be two lengths of Hose Reel Hose where the built up area exceeds 100ft or more. The Hose Reel Hose shall be connected with terrace pump at the terrace tank level shall be provided with 3.5Kg/cm<sup>2</sup> and discharge of 450 liters/min.
- 5. Single headed Yard Hydrant after every 45 meters shall be installed in the premises of the college connected with a permanent water source through a suitable fire pump for atleast two hours of firefighting at requisite pressure. At each Hydrant point there shall be hose cabinet, and shall contain 30 meters of fire hose and nozzle/ branch as per the relevant standard.

- 6. One underground static water storage tank of min. 200,000 liters capacity is recommended in the premises. This shall be provided with manholes for insertion of suction hose so that water from it can be used for firefighting purposes. The yard hydrants and Hose Reels can be connected to this storage tank through suitable instant auto start pumps.
- 7. Manual Fire Alarm system shall be provided in the College.
- B. Life safety/Fire Preventive and other precautionary measures.
- 1. The main entrance to the plot shall be of adequate width to allow easy access to the fire engine and in no case shall it measure less than 6 m.
- 2. The building shall be of Type I construction having external shell and load bearing elements of 4 h fire resistance rating, while internal/ non-load bearing walls shall have 2 h fire resistance rating.
- 3. The internal wooden compartments of the structure shall be given fire retardant treatment of at least 2 hours of rating. The wooden truss based attic/roof/ floor shall not be continuous over a large length, it shall be compartmented and must be given fire retardant treatment of at least 2 hours of rating.
- Occupant load shall be limited to 4 m<sup>2</sup> per person.
- 5. Every room with a capacity of 45 persons or more shall have at least two doorways.
- 6. Arrangement of Exits, doorways, corridor and passageways shall be per the relevant standard/code in practice/vogue for safe escape in case of emergency.
- 7. No exit doorway shall be less than 1 m in width and less than 2 m in height.
- 8. There shall be minimum two staircases and the requisites like type of construction, dimensions of elements of staircase and other necessary requirements shall be strictly as per the relevant standard/code in practice/vogue for safe escape in case of emergency.
- No gas piping or electric panels shall be allowed in the stairway. Ducting in the stairway may be permitted, if it is of 1 h fire resistance rating.
- 10. No combustible materials shall be used for decoration/wall paneling in the staircase.
- 11. No electric shaft/AC ducts or gas pipe etc. shall pass through the staircases.
- 12. The exit signs with arrow indicating the way to the escape route shall be provided at a suitable height from the floor level on the wall and shali be illuminated by

electric light connected to the corridor circuits. All landings of floor shall have floor indicating boards prominently indicating the

13. All landings of floor shall have floor indicating boards promitting and a placed on the wall number of floor. The Floor indicating boards shall be placed on the wall immediately facing the flight of stairs and nearest to the landing. It shall be of the size not less than 0.5 x 0.5 m. Fire Notice, Fire Order, Exit sign shall be displayed at conspicuous places as per requirements of NBC. On site Emergency/Evacuation plan shall have to be prepared and update at regular intervals.

- circuit breakers/earth leakage circuit breakers shall be provided in the circuit.
- 17. The laboratories likely to have highly flammable materials/chemicals should be located in separate blocks and adequate precautions should be taken to have separate store for keeping hazardous chemicals.
- 18. Good housekeeping in all areas, specially stores, kitchen, electrical installation, transformer house and waste disposals etc. should be maintained.
- 19. All electrical installations shall be periodically checked and tested by competent electrical engineers, while all loose electrical wiring if any shall be replaced immediately. Appropriate MCBs shall be installed where necessary in the electrical installations as per Indian Electrical standards. Electrical safety Audit should be carried out at regular interval as per Indian Electrical Rules.
- Staircase and corridor lighting shall have separate circuits. Miniature circuit breakers/earth leakage circuit breakers shall be provided in the circuit.
- 21. The adequate care shall be taken while using any gas for burners, etc, in laboratory/kitchens and necessary precaution shall be taken for storage of gas in form of bullet, tanks, battery or cylinders, etc as per rules.
- 22. LPG gas cylinder not more than 320 Kg should be stored in a gas bank. The cylinder to be installed at separate place with barrier and precaution.
- 23. Highly inflammable, explosive and other hazardous material shall neither be stored inside nor in the vicinity of the college building.
- 24. Emergency lighting shall be provided to be put on within 5 seconds (Preferably within 1 second) of the failure of the normal lighting supply and shall be powered from a source independent of that supplying normal lighting. The Emergency lighting system shall be capable of continuous operation for a minimum duration of 90 min. The horizontal luminance at floor level on the centre line of an escape route shall be not less than 10 lux.
- 25. The Car Parking must not be allowed within five meters to the nearest wall of the buildings.
- 26. The whole area around College, around the DG sets and the around the electric transformers of the college if any should always be kept free of vegetation.
- 27. Public Address System (PA system) with two way communication system shall be installed.
- 28. Trained staff for dealing with the firefighting extinguisher/appliance and evacuation procedure shall be engaged. Firefighting drill and evacuation drillshould be held on regular basis.

- Arrangement should be made for proper checking, testing and maintenance of 29. all Fire protection and detection systems to keep them in proper working condition at all the time.
- One senior person preferably from administration may co-ordinate and look-30. after the installed First Aid appliances.
- No Smoking Zone (while applicable in Office, Store, depot etc) shall be enforced 31. strictly.
- The Iron grill (if fixed) from atleast one window of each room in the ground floor 32. needs to be removed so that it can be used as an additional means of escape during an emergency.
- Safe Assembly point shall be earmarked in the premises of the institution. 33.
- Fire drills shall be conducted, in accordance with the fire safety plan, at least once every three months for buildings during the first two years. Thereafter, fire drills 34. shall be conducted at least once every six months.
- The staff of the college should be trained to handle and operate the first aid 35. firefighting equipments.
- The telephone numbers of Fire & Emergency Service Control Room Anantnag i.e.
- 101, 01932-222822 and 01932-227531 should be displayed prominently at 36. conspicuous places in all the buildings of the buildings.

**Deputy Director**, Fire & Emergency Services, Command Anantnag.