

INITIAL FIRE SAFETY INSPECTION REPORT

Fakhruddin Textiles Mills Limited (Extension area)

RSC ID: 24137

ADDRESS: Ghargharia, Master Bari, Kewa, Sreepur, Gazipur

24.191360, 90.435802

Other Factories:None



Inspected By: Rakibul Alam, Mohammad Atick Al Zaman ,Nainin Nowrose & Md. Anisuzzaman

Date: 25-Feb-2021 & 11-Aug-2021

Fire Safety Inspection Report

Fakhruddin Textiles Mills Limited (Extension area)

Introduction:

Fakhruddin Textiles Mills Limited (Extension area) was surveyed for fire safety on 25 February and 11 August, 2021 by The RSC Inspection Team. This summary identifies the major deficiencies that were identified during the inspection.

The purpose of this survey was to identify significant fire safety issues and to provide recommendations for remediation based on applicable standards specified by the RSC. The scope of this initial fire safety inspection was limited to the review and identification of major fire safety issues. The inspection did not include identification of minor deficiencies, which will be further addressed as part of follow-up inspections. Table 1 summarizes the major fire safety issues identified during the inspection.

Recommendations have been provided to address each issue.

An implementation schedule shall be developed by the factory to remediate each of the findings. The specific timing of improvements, including any requested extensions due to design / installation constraints, shall be submitted to the RSC for approval

Findings & Recommendations :

Table 1-2 summarizes the fire safety non-compliant issues identified during the inspection. Recommendations have been provided to address each issue with specific remediation timeline.

An implementation schedule shall be developed by the factory to remediate each of the findings. The specific timing of improvements, including any requested extensions due to design / installation constraints, shall be submitted to the RSC for approval.

Table-1: Findings And Recommendations (Building 08, 09, 10 & Building 18)

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	Storage rooms/areas (bonded warehouse, finished carton etc.) discharges directly into the exit stair enclosures. (Store and Dining Building)	Openings from exit enclosure to storage room, generator and transformer spaces shall be provided with a vestibule with fire rated construction and openings. Provide a 1.5 hr. fire rated door on the exit stair side and a 1-hr. fire rated door on the Store, generator, sub-station room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.	Within 3 months



F-2	Fire Rated Construction	Unsealed penetrations and openings are located in exit stair enclosures. and separation walls. (Store and Dining Building)	Seal all penetrations and openings in exit stair enclosure and separation walls to maintain the required fire separation.	Within 2 months
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F-3	Fire Rated Construction	Unsealed utility pipe shaft/penetration is located in the fire-rated floor/ceiling assemblies (Store and Dining Building)	Provide a minimum 2-hr fire-rated shaft to separate the utility risers from each floor level and seal all penetrations in floor/ceiling assemblies to maintain the fire separation.	Within 2 months
				

F-4	Fire Rated Construction	Exit stair separation from work areas & other spaces on each floor by fire-rated construction is not completed. (Training room (1st floor), toilets and BD room (stair-3) and accessories delivery room at Store and Dining building and Color service building stairs). Also door accessories were missing on installed fire doors.	Separate the exit stairs from work areas and other building spaces on all floor levels by minimum 2- hr. fire-rated construction. Provide minimum 1.5- hr. fire rated doors and seal all unprotected openings and penetrations to maintain the fire separation. Ensure that all fire doors are self-closing and positive latching, and are provided with fire exit (panic) hardware where serving production floors or assembly occupancies. If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.	Within 2 months
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F-5	Fire Detection	The fire alarm and detection system installation requires detailed review to confirm compliance with NFPA 72.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval/acceptance test.	Within 2 months
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F-6	Fire Protection	The fire pump set installation requires detailed review to confirm compliance with NFPA 20.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval/acceptance test.	Within 2 months
 				
F-7	Fire Protection	Standpipe system installation requires detailed review to confirm compliance with NFPA 14.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval/acceptance test.	Within 2 months

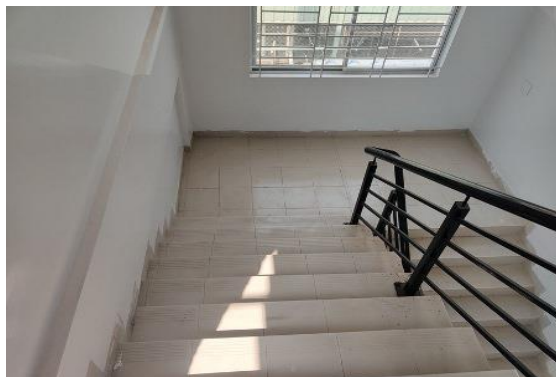


F-8	Fire Protection	Automatic sprinkler system installation requires detailed review to confirm compliance with NFPA 13.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval/acceptance test.	Within 2 months

F-9	Fire Protection	Inspection, testing and maintenance for the fire alarm system is not in accordance with NFPA 72.	Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with NFPA 72.	Within 3 months
				
F-10	Fire Protection	Inspection, testing and maintenance of the fire pump system is not in accordance with NFPA 20.	Inspect, test and maintain the fire pump system and keep written records on-site, in accordance with NFPA 20	Within 3 months



F-11	Fire Protection	Inspection, testing and maintenance of the standpipe system is not in accordance with NFPA 14.	Inspect, test and maintain the standpipe system and keep written records on-site, in accordance with NFPA 14	Within 3 months
F-12	Egress	Handrails are not provided on both sides of both exit stairs. (Color service building)	Provide handrails on both sides of the exit stair. New handrails shall have a minimum height of 865 mm (34 in.) and a maximum height of 965 mm (38 in.) as measured from the leading edge of the tread. Intermediate handrails shall be provided when the stair width exceeds 2.2 m (87 in.) .	Within 2 months



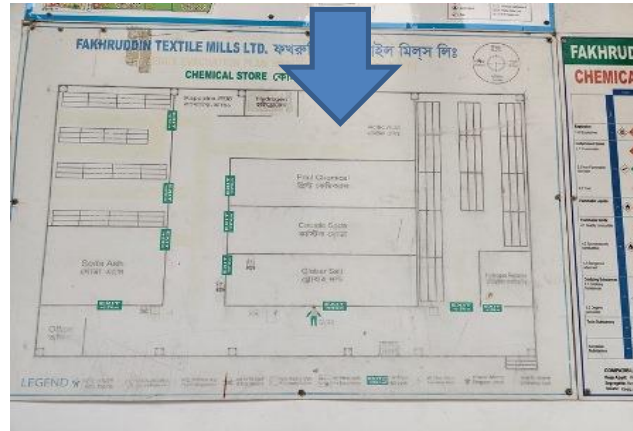
F-13	Egress	Exits are not remotely located from each other. (Color service building)	Modify exit arrangement to meet Accord 6.6.6. or Provide additional exit(s) to meet Accord 6.6.6.	Within 4 months
F-14	Egress	Exit stairs do not discharge directly to the outside. (Color service building)	Modify stair to discharge directly outside. Or Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas). Or Provide sprinkler protection for discharge floor in accordance with NFPA 13 meeting Accord 6.17.3..	Within 6 months



F-15	Egress Lighting	Exit signage not illuminated (burned out, broken, etc.). (All building)	Regularly inspect all exit signage and replace/install lights as needed to illuminate signs. The source of illumination shall provide not less than 50 lux at the illuminated surface with a contrast of not less than 0.5. Approved self-luminous signs which provide evenly illuminated letters having a minimum luminance of 0.2 cd/m ² may also be used.	Within 1 month
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F-16	Egress	Width of exit stairs are less than 1.5 m (60 in.). (Color Service Building)	Provide exit stair minimum clear and unobstructed width of 1.5 m (60 in.) in accordance with Accord standard 6.5.6.2.1.	Within 4 months
F-17	Egress	At chemical store building, a single means of egress is provided from rear part where travel distance is exceeded.	Ground or basement story is allowed a maximum of 50 occupants and 23 m (75ft) travel distance. Reduce travel distance to not more than 75 ft. Or Provide additional means of egress.	Within 3 months



F-18	Egress	A single means of egress is provided from Store and Dining building 2nd floor store office and label printing section.	Ground or basement story is allowed a maximum of 50 occupants and 23 m (75ft) travel distance. The second story is allowed a maximum of 30 occupants and 23 m (75ft) travel distance. All other stories require a minimum of 2 egress exits. Provide additional means of egress from Store and Dining building 2nd floor store office and label printing section..	Within 3 months
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F-19	Fire Rated Construction	Exterior exit stairs are not properly separated from the building.	Exterior exit stairs shall be separated from the building with a rating requirement of [1 hr. fire rating for 3 or fewer stories or 2 hr. fire rating for 4 or more stories]. The rating of the exterior wall shall extend 3.05 m (10 ft) beyond the ends of the stair structure.	Within 2 months



Table-2: Building 11, 12, 13, 14, 15, 16 & 17

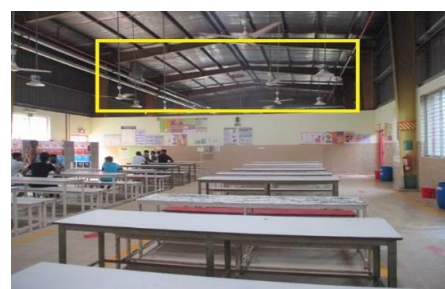
SI No.	Category	Findings	Required Action	Remediation Time Frame
F-20	Fire Rated Construction	Exit Enclosures are not properly fire separated from other occupancy on each floor by fire rated construction. Location: Building 13-Garments Dyeing Extension	Provide minimum 1-hr fire rated separation in exit enclosures with minimum 1-hr fire rated doors and seal all unprotected openings and penetration to separate the exit stairs from work areas and other building spaces on all floor levels with similar rating of fire door. Ensure that the fire doors are self-closing and positive latching and that they are provided with fire exit (panic) hardware where serving production floors. If fire doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system.	Within 3 months
				

F-21	Fire Rated Construction	Areas used for storage of combustible materials are open to the surrounding occupancy which are not separated by fire rated construction. Location: ground floor of Garment Dyeing and Seamless shed(Building 16) and Building 13- Garment dyeing extension	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. All penetrations to maintain required fire separation. Or, Where separate storage rooms are not feasible, Provide defined storage areas and limit the storage arrangement as follows:- 1. General Condition: Maximum height of 2.4m and maximum area of 23m². Separate areas of unenclosed combustible storage by a minimum clear distance of 3m. 2. If sprinkler protected: maximum height of 3.66m and maximum area of 93m². Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.	Within 3 months
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F-22	Fire Rated Construction	Chemical storage area is not separated by fire-rated construction having non rated door and unsealed penetrations and openings. Location: Location: ground floor of Garment Dyeing and Seamless shed(Building 16)	Separate the chemical storage room by 4-hr fire rated construction. Seal all penetrations and protect the openings to maintain the required fire separations. Keep 16-points MSDS of all chemicals in the storage area. ** As per BNBC, chemical storage room shall be Type-1 construction (Table-3.2.4 of BNBC-2006). Follow section-2.13 and Table 3.2.1 of BNBC-2006 for the guideline.	Within 3 month
 				

F-23	Fire Rated Construction	Auto -Clave machine is not properly fire separated from other occupancy by fire rated construction. Location : Ground floor of Garments Dyeing extension-building 13	Provide minimum 1-hr fire-rated separation by fire rated construction. All penetrations to maintain required fire separation. If fire doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system.	Within 3 month
  				
F-24	Fire rated construction.	Tecnopea -3 are not separated from storage and Dining room are not separated from storage by fire rated construction due to unprotected opening. Location: building 17-Store and prayer room.	Tecnopea- 3 machine shall be separated from storage by minimum 1 hour fire rated construction and Dining room shall be separated from storage by minimum 3 hours by fire rated construction.	Within 3 month



F-25	Fire Rated Construction	The main structural elements of the buildings are constructed by steel which is non-rated and were found in exposed condition without any fire protection. (New Structure). Location: Building 13-Garment dyeing extension, Building 15- Printing shed and building 16- Garments dyeing & seamless shed	The buildings are new steel structure which shall be type-I or II construction. So, provide require rating in the structural elements of the buildings. Consult with a qualified fire protection engineer. Follow BNBC 2006-Table 3.2.4, 3.1.9 and 3.3.1 as reference.	Within 6 months
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F-26	Fire Rated Construction	Rooms used for storage of combustible materials are not separated from the surrounding occupancy/areas . Location: Building-15-Printing shed	Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction.	Within 3 months
				
F-27	Fire rated construction	Generator ,Boiler & compressor are not properly separated from each other by fire rated construction. Location : Building 14-Utiltiy	Generator Boiler & Compressor room shall be separated from each other by a minimum 2-hr fire-rated construction (wall, floor, slab, etc.). Seal all penetrations and openings (door, window, etc.) by minimum 1.5-hr fire-rated materials to maintain the fire separation as required. All exhaust systems shall discharge to the exterior of the building in a safe location.	Within 3 months



F-28

Fire Detection System

The existing fire alarm & detection system is not installed properly. Still few areas are out of detection system.

Submit the as-built design/drawing of fire alarm & detection system to Accord for review.

Within 06 Months (Design review & Modification of the system)



F-29	Means of Egress	Common path of egress travel was more than 23 m of ground floor printing shed.. Location: Building 15-printing shed.	The maximum common path of travel for the general storage shall be 23 m and 30 meter with sprinkler. So, Reconfigure the egress arrangement to reduce the maximum tolerable common path of travel.	Within 3 months
				
F-30	Means of Egress	Occupant load sign, exit designation and stair designation are not posted near to the exit. Location: all building	Occupant load sign, exit designation and stair designation shall be posted at the entrance to exits/ near to exit.	Within 1 month

F-31	Means of Egress	Fire evacuation updated maps is not posted at the entrance of all exit stair. Location: Building 13,Building 15 & building 16	Updated Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 1 month
F-32	Egress lighting	Directional signs are not provided where direction of the path of travel to an exit has changed. Location: Building 13,building 15 & building 16	Illuminated directional signs shall be provided where there is a change in the direction for the path of travel and the direction to an exit is not obvious.	Within 1 months
F-33	Egress lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: Building 13,building 15 & building 16	Test the emergency lighting system on each floor and provide additional emergency fixtures to provide adequate illumination along the means of egress. Provide a minimum illumination of 10 lux at the floor level within exit stairs and exit discharge paths and minimum 2.5 lux along exit access aisles.	Within 3 months
F-34	Egress lighting(ITM)	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The ACCORD standard.	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The ACCORD standard. Keep written records on-site.	Within 3months

F-35	Fire Alarm & Detection System (FADS)	The Required Fire Alarm system is not installed in accordance with the ACCORD standard and NFPA-72. Location: Building 11,building 12,buidding 13,building 14,building 15 building 16 building 17	Design & Installation of Fire Alarm system shall be in accordance with ACCORD standard and NFPA 72. Submit design, documents and calculations to RSC for review prior installation/modification. After installation the owner shall contact the RSC for witness of conducting the final acceptance testing of the fire detection & alarm system installation. Also inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.	Design within 2 months, Install within 4 months.
F-36	Fire Detection System (ITM of FADS)	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 or as per Accord standard	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72 or as per Accord standard.	Within 1 Month after installation.
F-37	Fire Protection System(ITM of Extinguisher)	Inspection, testing, and maintenance of the extinguisher system is not in accordance with NFPA 10 or as per Accord standard.	Inspect, test and maintain the extinguisher system, and keep written records on-site, in accordance with NFPA 10 or as per Accord standard.	Within 1 month