

INITIAL FIRE SAFETY INSPECTION REPORT

Green Life Knit Composite Ltd. (Extension)

RSC ID: 24630

ADDRESS: Tongabari , Ashulia Saver Dhaka ,Bangladesh.

Other Factories: Green Life Knit Composite Ltd-11061 (In this premise)



Inspected By: Md. Ferdaus Jaman & Md. Anisuzzaman

Date: 10th September 2023

Fire Safety Inspection Report

Green Life Knit Composite Ltd. (Extension)

Introduction:

Green Life Knit Composite Ltd. (Extension); complex was surveyed for fire safety on **10/09/2023** by The RSC Inspection Team. The purpose of the 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.

Limitations

The information in this fire safety inspection report was obtained during a visit to the facility and during interviews with local factory management. It has not been possible to provide independent verification for all the information and data collected, and, therefore, The RSC cannot accept general responsibility for omissions or errors arising from inaccuracies in this report from the information obtained.

The findings and recommendations in this report are not intended to imply, guarantee, ensure or warrant compliance with any government regulations. Additionally, the results do not imply in any way that compliance with the findings or recommendations as stated in this report will eliminate all hazards, risks or exposures or that hazards, risks or exposures not referred to in this report do not exist. Compliance with the findings and recommendations stated in this report does not relieve the factory owner from obligation to comply with specific project requirements, industry standards, or the provisions of any local government regulations.

General Factory Information

Factory Building name(s): There are four structure under this ID-24746 which are below

- 1. Wash Building: 3-Storied Wash Building (G+2 with Mezzanine) Steel structure, (Construction started: May 2013-March 2016 and Occupied June 2018, Interim building)**
- 2. Printing and Embroidery Building: 3-Storied Printing & Embroidery Steel structure (Construction started: December 2012-June 2017 and Occupied Oct 2018,)**
- 3. Fire pump room**
- 4. Transformer room**

Factory Address: Tongabari , Ashulia Saver Dhaka ,Bangladesh.

Points of contact:

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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: Finding & recommendations for washing building

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction.	Generator is not separated from production & chemical store due to unprotected opening. Location: South side of ground floor.	Generator shall be separated from other occupancies by a minimum 2-hr fire rated construction (wall, floor, slab etc.). Seal all penetrations and openings (door, window etc.).	Within 3months
				

F-2	Fire Rated Construction	Rooms used for storage of combustible materials are not separated from the surrounding Location: First floor of washing building.	Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction.	Within 3 months
				
F-3	Fire Rated Construction.	3 Storied washing building is steel construction which appears to be nonrated and were found in exposed condition Location: 3 Storied washing building	The building is a steel structure which shall be type-I or II construction. So, provide require rating in the structural elements of the building. Consult with a qualified fire protection engineer. Follow BNBC 2006-Table 3.2.4, 3.1.9 and 3.3.1 as reference.	Within 6months

F-4	Mean of Egress	The exit stairs are not separated from [work areas, other spaces] on each floor by fire rated construction due to unprotected opening. Location: 3 Storied washing building.	The exit stair enclosure shall be provided with a minimum 1-hr fire resistance rating with 1- hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated materials for buildings with 3 or fewer stories. The exit stair enclosure shall be provided with a minimum of 2- hr. fire resistance rating with 90 minutes opening protection for buildings 4 or more stories. 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. Openings from exit enclosure to storage spaces shall be provided with a vestibule with fire rated construction as per RSC Technical Guideline (Standard) V1-6.14.3 .	Within 3months
  				

F-5	Mean of Egress	The exit discharge path [south side exit] is less than 10 ft wide and is not separated from the building interior. Location: South side exit if 3 storied washing building.	Seal all penetrations and openings to the interior of the building along the discharge path, up to a height of 10 ft. to provide a minimum 1-hr fire separation	Within 3months
				
F-6	Mean of Egress	Parapets or guards are provided in occupied roof which is less than 1067mm (42 inch). Location: 3 storied washing building	Provide parapets or guards with a minimum height of 1067mm (42 inch.).	Within 3months



F-7	Mean of Egress	Handrails are not provided on both sides of both exit stairs. Location: 3 storied washing 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 3months
F-8	Mean of Egress	Width of exit stairs are less than 1.5 m (60 in.). Location: West side exit stair of 3 storied washing building.	Provide exit stair minimum clear and unobstructed width of 1.5 m (60 in.) in accordance with RSC Technical Guideline (Standard) V1-6.5.6.2.1.	Within 4months



F-9	Means of Egress	Building did not have stair designation signs at required locations.	Provide stair designation sign at each floor entrance from the stair to the floor in English and Bengali. Signs shall indicate the name of the stair and the floor level. Signs shall be posted adjacent to the door.	Within 1 month
F-10	Means of Egress	Building did not have occupant load signs at required locations.	Post the occupant load for every assembly and production floor in a facility in a conspicuous space near the main exit or exit access doorway for the space.	Within 1 month
F-11	Mean of Egress	Updated fire evacuation maps were not posted at the entrance of all exit stair.	Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 1 month

F-12	Mean of Egress	Uneven slopewas found on first floor north side exit.	Provide proper level of exit of north side. Remove all types of tripping hazards of the means of egress. Means of egress shall be maintained continuously free and clear of all obstructions	Within 1 month
				
F-13	Egress lighting	Exit sign not provided at exit. Location: 3 storied washing building	Lighted exit signs shall be placed at entrance to an exit. Additional exit signs shall be placed throughout the facility anywhere the continuation of the egress is not obvious. Lighted exit signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.	Within 1 month

F-14	Egress lighting	Directional signs are not provided where direction of the path of travel to an exit has changed. Location: 3 storied washing building	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 month
F-15	Egress lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes . Location: 3 storied washing building.	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-16	Egress Lightning	Manual on-off switch is provided for [emergency lighting / exit signage] units.	Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.	Within 1 month

F-17	ITM (Emergency light)	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The RSC standard.	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The RSC standard. Keep written records on-site.	Within 3 months
F-18	Fire Protection System(Standpipe)	Standpipe system installation requires detailed review to confirm compliance with NFPA 14 ,20 ,22 & 24 or as per RSC standard. Location: 3 storied washing building	Submit the standpipe system drawing to RSC for review. Once the design is reviewed, install and modify the standpipe system throughout the building in accordance with review comment, RSC Standard and NFPA 14,20,22 and 24. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing.	Design Review within 1 month and modification within 3 months (If require).



F-19	ITM of Protection System(SUPS)	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 25 or as per RSC standard.	Inspect, test and maintain the standpipe system and keep written records on-site, in accordance with NFPA 25 or as per RSC standard.	Within 1 Month after modification(If require).
F-20	ITM of Protection System(SUPS)	Inspection, testing, and maintenance for the fire pump system is not in accordance with NFPA 25 or as per RSC standard.	Inspect, test and maintain the fire pump system and keep written records on-site, in accordance with NFPA 25 or as per RSC standard.	Within 1 Month after modification(If require).

F-21	Fire Alarm & Detection System (FADS)	Addressable fire alarm & detection system installation requires detailed review to confirm compliance with NFPA 72 and RSC standard.	Submit design, documents and calculations to RSC for review prior and based on the review modify the system if there is any. 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 Review within 1 month and modification within 3 months (If require).
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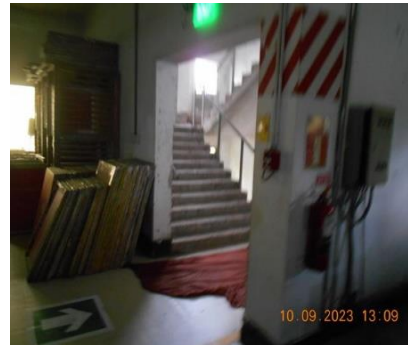
F-22	Fire Protection System(ITM of Extinguisher)	Inspection, testing, and maintenance of the extinguisher system is not in accordance with NFPA 10 or as per RSC standard.	Inspect, test and maintain the extinguisher system, and keep written records on-site, in accordance with NFPA 10 or as per RSC standard.	Within 1 Month
F-23	Fire alarm & Detection System (ITM of FADS)	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 or as per RSC standard.	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72 (Table-14.3.1) or as per RSC standard.	Within 1 Month after modification(If require).

Table-2: Finding & recommendations for 3-Storied Printing & Embroidery Steel structure

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-24	Fire Rated Construction	Rooms used for storage of combustible materials are not separated from the surrounding Location: 2nd of printing building.	Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction.	Within 3 months
  				
F-25	Fire Rated Construction.	3-Storied Printing & Embroidery building is steel construction which appears to be nonrated and were found in exposed condition Location: 3-Storied Printing & Embroidery building	The building is a steel structure which shall be type-I or II construction. So, provide require rating in the structural elements of the building. Consult with a qualified fire protection engineer. Follow BNBC 2006-Table 3.2.4, 3.1.9 and 3.3.1 as reference.	Within 6months



F-26	Mean of Egress	The exit stairs are not separated from [work areas, other spaces] on each floor by fire rated construction due to unprotected opening. Location: 3-Storey Printing & Embroidery building.	The exit stair enclosure shall be provided with a minimum 1-hr fire resistance rating with 1- hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated materials for buildings with 3 or fewer stories. The exit stair enclosure shall be provided with a minimum of 2- hr. fire resistance rating with 90 minutes opening protection for buildings 4 or more stories. 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 3months
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F-27	Mean of Egress	The exit discharge path [south side exit] is less than 10 ft wide and is not separated from the building interior. Location: South side exit if 3 storied printing building	Seal all penetrations and openings to the interior of the building along the discharge path, up to a height of 10 ft. to provide a minimum 1-hr fire separation	Within 3months
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F-28	Mean of Egress	Parapets or guards are provided in occupied roof which is less than 1067mm (42 inch). Location: 3 storied printing building.	Provide parapets or guards with a minimum height of 1067mm (42 inch.).	Within 3months
				
F-29	Mean of Egress	Handrails are not provided on both sides of both exit stairs. Location: 3 storied printing 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 3months

F-30	Mean of Egress	Width of exit stairs are less than 1.5 m (60 in.). Location: North side exit stair of 3 storied printing building.	Provide exit stair minimum clear and unobstructed width of 1.5 m (60 in.) in accordance with RSC Technical Guideline (Standard) V1-6.5.6.2.1.	Within 4months
F-31	Means of Egress	Building did not have stair designation signs & exit designation signs at required locations. Location: 3 storied printing building	Provide stair designation sign & exit designation sign at each floor entrance from the stair to the floor in English and Bengali. Signs shall indicate the name of the stair and the floor level. Signs shall be posted adjacent to the door.	Within 1 month
F-32	Means of Egress	Building did not have occupant load signs at required locations. Location: 3 storied printing building.	Post the occupant load for every assembly and production floor in a facility in a conspicuous space near the main exit or exit access doorway for the space.	Within 1 month
F-33	Mean of Egress	Updated fire evacuation maps is not posted at the entrance of all exit stair. Location: 3 storied printing building.	Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 1 month
F-34	Mean of Egress	Tripping hazard was observed means of egress. Location: first floor north side of 3 storied printing building.	Remove all types of tripping hazards of the means of egress. Means of egress shall be maintained continuously free and clear of all obstructions	Within 1 month



F-35	Mean of Egress	storage are located at first floor north side exit stair.	Remove the storage from exit stair	Immediately
				

F-36	Egress lighting	Exit sign not provided at exit. Location: 3 storied washing building	Lighted exit signs shall be placed at entrance to an exit. Additional exit signs shall be placed throughout the facility anywhere the continuation of the egress is not obvious. Lighted exit signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.	Within 1 month
F-37	Egress lighting	Directional signs are not provided where direction of the path of travel to an exit has changed. Location: 3 storied washing building	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 month
F-38	Egress lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes . Location: 3 storied washing building.	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-39	Egress Lightning	Manual on-off switch is provided for [emergency lighting / exit signage] units.	Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.	Within 1 month
F-40	ITM (Emergency light)	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The RSC standard.	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The RSC standard. Keep written records on-site.	Within 3 months
F-41	Fire Alarm & Detection System (FADS)	Addressable fire alarm & detection system installation requires detailed review to confirm compliance with NFPA 72 and RSC standard.	Submit design, documents and calculations to RSC for review prior and based on the review modify the system if there is any. 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 Review within 1 month and modification within 3 months (If require).



F-42	Fire alarm & Detection System (ITM of FADS)	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 or as per RSC standard.	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72 (Table-14.3.1) or as per RSC standard.	Within 1 Month after modification(If require).
F-43	Fire Protection System(ITM of Extinguisher)	Inspection, testing, and maintenance of the extinguisher system is not in accordance with NFPA 10 or as per RSC standard.	Inspect, test and maintain the extinguisher system, and keep written records on-site, in accordance with NFPA 10 or as per RSC standard.	Within 1 Month