

FIRE SAFETY INSPECTION REPORT

**GREEN LIFE KNIT COMPOSITE
TONGABARI, ASHULIA SAVER DHAKA ,
BANGLADESH.**

OTHER FACTORIES: NONE



ACCORD
on Fire and Building Safety in Bangladesh

April 10, 2014

SUMMARY

Green Life Knit Composite was surveyed for fire safety on 4/10/2014 by Hughes Associates, Inc. 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 Accord. 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.

Tables 1 - 2 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 Accord for approval.

Table 1. Findings And Recommendations - Building 1 & 2

No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Fire Rated Construction	The south eastern exit stair enclosure had openings on multiple floors.	Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separation.	Within 3 months



F-2	Fire Rated Construction	The Packaging sections on the 3rd and 2nd floors have unsealed openings (glass partitions). The Bonded yarn store on the 1st floor has multiple openings (vents) on the enclosure walls. The Knitting machine areas on the 1st floor has large transient storage on the northern side that is not separated by fire rated construction.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows: - Maximum height of 2.4m and maximum area of 23m² - 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
-----	-------------------------	--	---	-----------------

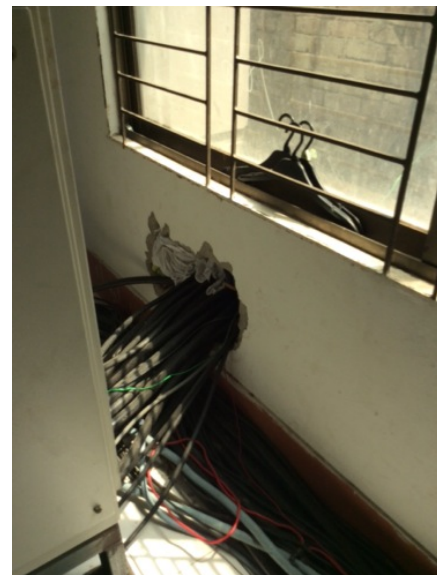
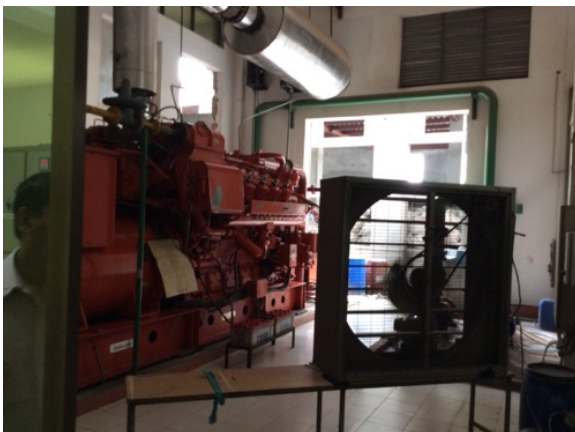




F-3	Fire Rated Construction	The various exit stairs are not separated from work areas on each floor by fire-rated construction.	Provide minimum 1.5-hr fire rated doors and seal all unprotected openings to separate the exit stairs from work areas and other building spaces on all floor levels. Ensure that 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-4	Fire Rated Construction	The boiler,generator, transformer and EMR rooms, located on the ground floor of building 2, are not separated from the discharge of the southern exit stairwell by fire-rated construction (openings, non-rated doors, penetrations).	Separate the boiler,generator, transformer and EMR rooms from the exit discharge by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations	Within 3 months
-----	-------------------------	---	--	-----------------



F-5	Fire Rated Construction	Flammable liquid storage area (Chemical store), located on the ground floor of building 2, is not separated by fire-rated construction (openings, non-rated doors, penetrations).	Separate the hazardous materials / flammable liquid storage room by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations.	Within 3 months
-----	-------------------------	---	---	-----------------



F-6	Egress	Egress doors / gates with locking features are provided at building exits, exit stairs, along egress routes and exit discharges. Such gates were located in multiple areas through out the building; but were found to be open and unlocked during the inspection.	Remove locking features from all egress doors / gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	Immediate
-----	--------	--	---	-----------



F-7	Egress	Storage located in the egress path was responsible for either blocking or reducing the width of egress paths in multiple location such as in the Packaging area (3rd floor), Cutting section (3rd floor) and in the Sewing section (2nd floor).	Keep egress paths and stairs clear of storage. Provide minimum aisle widths of 36-in.	Immediate
-----	--------	---	---	-----------





F-8	Egress	The exterior discharge path for the southern stair (Building 2) is of inadequate width.	Remove all obstacles to create a new discharge path (preferably from the western side). Ensure that the exterior building wall adjacent to the passageway is rated 1-hr up to 10 ft. above grade.	Within 3 months
-----	--------	---	---	-----------------



F-9	Egress	Handrails are not provided in the unfinished portion of the northern stair case of Building 2.	Provide handrails on at least one side of exit stair.	Within 3 months
-----	--------	--	---	-----------------



F-10	Egress	The western exit stairs discharge inside the production area of the Dyeing floor in Building 1.	Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas).	Within 6 months
------	--------	---	--	-----------------



F-11	Fire Protection	The fire alarm system is antiquated, not a listed system, and does not provide alarm and notification features consistent with acceptable standards.	Replace the fire alarm system with a new, listed addressable fire alarm system in accordance with NFPA 72.	Design within 4 months, install within 9 months
------	-----------------	--	--	---



F-12	Fire Protection	Inspection, testing, and maintenance records for the fire alarm system were 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.	Design within 4 months, install within 9 months
------	-----------------	---	---	---

F-13	Fire Protection	The building is equipped with single-station smoke alarms. Smoke alarm activation sounds only a local alarm and does not provide automatic fire alarm notification of occupants.	Replace the single-station smoke alarms with automatic smoke detectors tied into the fire alarm system. Provide complete smoke detection coverage in accordance with NFPA 72. Configure the fire alarm system to initiate occupant notification upon activation of any two smoke detectors in addition to the manual fire alarm stations.	Within 6 months
------	-----------------	--	---	-----------------



F-14	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. This inadequacy was observed on all floors. No evidence of an alternative "Instant Power Supply" (IPS) was found.	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-15	Egress Lighting	The exit signs leading to the south eastern stairs were positioned incorrectly. Non functional exit signs (burned out) were also located in the Bonded grey fabric store (1st floor) and in the Cutting section (3rd floor).	Regularly inspect all exit signage and replace/install lights as needed to illuminate signs.	Within 3 months



Table 2. Findings And Recommendations - Building 3

No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Fire Rated Construction	The exit stairs are not separated from dining and storage areas on each floor by fire-rated construction.	Provide minimum 1.5-hr fire rated doors and seal all unprotected openings to separate the exit stairs from work areas and other building spaces on all floor levels. 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-2	Egress	Exit capacity is not adequate for the occupant load. The available exit stairs on the eastern and western ends have a total discharge capacity of 250 people. The Dining area (1st floor) is used to serve 500 individuals.	Reduce occupant load to not more than available capacity of 250 persons or provide additional exits.	Immediate
F-3	Egress	Storage was located at the base of both the exit stair.	Remove all storage from exit stairs and egress paths.	Immediate



F-4	Fire Protection	The fire alarm system is antiquated, not a listed system, and does not provide alarm and notification features consistent with acceptable standards.	Replace the fire alarm system with a new, listed addressable fire alarm system in accordance with NFPA 72.	Design within 4 months, install within 9 months
-----	-----------------	---	---	--

F-5	Fire Protection	Inspection, testing, and maintenance records for the fire alarm system were not in accordance to 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-6	Fire Protection	The building is equipped with single-station smoke alarms. Smoke alarm activation sounds only a local alarm and does not provide automatic fire alarm notification of occupants.	Replace the single-station smoke alarms with automatic smoke detectors tied into the fire alarm system. Provide complete smoke detection coverage in accordance to NFPA 72. Configure the fire alarm system to initiate occupant notification upon activation of any two smoke detectors in addition to the manual fire alarm stations.	Within 6 months
