

# **FIRE SAFETY INSPECTION REPORT**

**KAROONI KNIT COMPOSITE  
RATANPUR, SHAFIPUR  
KALIAKOIR**

**OTHER FACTORIES: NONE**



**ACCORD**  
on Fire and Building Safety in Bangladesh



April 5, 2014

## **SUMMARY**

**Karooni Knit Composite was surveyed for fire safety on 4/5/2014 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 - Garments Building**

No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Fire Rated Construction	Storage rooms and process areas throughout the building used for combustible storage are not separated by fire-rated construction.	<p>Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.</p> <p>Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows:</p> <ul style="list-style-type: none"> <li>- Maximum height of 2.4m and maximum area of 23m<sup>2</sup></li> <li>- If sprinkler protected: maximum height of 3.66m and maximum area of 93m<sup>2</sup></li> </ul> <p>Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.</p>	Within 3 months



F-2	Fire Rated Construction	The 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
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F-3	Fire Rated Construction	Unsealed penetrations and openings are located in the fire-rated floor/ceiling assemblies, specifically the electrical shaft in the South end of the building.	Provide a minimum 2-hr fire-rated shaft to separate the utility risers from each floor level.  Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation.	Within 3 months
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F-4	Egress	Egress doors and gates with locking features are provided throughout the stairwells.	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
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F-5	Egress	Storage was located in the egress path throughout the finishing areas	Keep egress paths and stairs clear of storage.	Immediate
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F-6 Egress

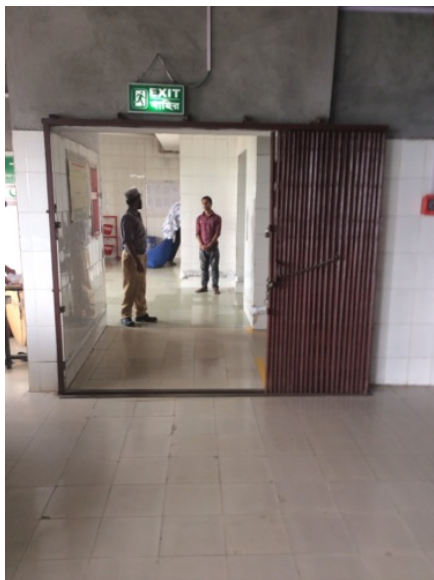
Storage was located on the ground floor in the SW exit stair.

Remove all storage from exit stairs and egress paths.

Immediate



F-7	Egress	Exit capacity and number of exits are not adequate for the occupant load on floors 1, 2, 3, and 5. Occupant load for Floor 2 is 587, Floor 3 is 584. Exit capacity is 533. Floors 1, 2, 3 and 5 all have more than 500 occupants, and only 2 exits.	Reduce occupant load to not more than available exit capacity immediately. In the future, if greater occupant load is desired, provide additional exits.	Immediate
F-8	Egress	Collapsible gates and sliding doors are provided throughout the building.	Replace all gates and sliding doors along the means of egress with side-hinged, swinging egress doors.  If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	Within 1 month



F-9	Egress	The width of egress aisles is less than 36-in. on multiple floors.	Provide minimum aisle widths of 36-in.	Within 3 months
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F-10	Egress	Common path of egress travel exceeds 30 m in floor 7 store room.	Reconfigure the egress arrangement to reduce the maximum common path of travel to not more than 30 m.	Within 3 months
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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
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F-12	Fire Protection	The high-rise building has an occupied floor greater than 23m (75 ft) and is not provided with automatic sprinkler protection. The large occupant loads, heavy fuel loading, and anticipated extended egress times warrant sprinkler protection.	Provide automatic sprinkler protection throughout the building in accordance with NFPA 13.	Design within 6 months, install within 12 months
F-13	Fire Protection	Inspection, testing, and maintenance for the fire alarm system it was 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



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F-14	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.	Remove single-station smoke alarms. Provide automatic smoke detection throughout the building in accordance with NFPA 72.	Within 6 months
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F-15	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes on floor 5	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
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F-16	Egress Lighting	Illuminated exit signage not installed on multiple floors.	Regularly inspect all exit signage and replace/install lights as needed to illuminate signs.	Within 3 months
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F-17	Egress Lighting	Inspection, testing, and maintenance for the emergency lighting system was not in accordance with The ACCORD standard.	Inspect, test and maintain the emergency lighting system in accordance with The ACCORD standard. Keep written records on-site.	Within 3 months
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**Table 2. Findings And Recommendations - Office/Knitting Shed**

No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Fire Rated Construction	The boiler, generator, and transformer room is not separated by fire-rated construction.	Separate the boiler, generator, and transformer 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-2

Egress

Collapsible gates and rollup doors are provided at building exits.

Replace all gates / sliding doors along the means of egress with side-hinged, swinging egress doors.

If locks are required for security reasons, utilize special door locking features complying with NFPA 101.



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F-3	Egress	Egress doors and gates with locking features are provided at building exits.	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
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F-4	Egress	Exit door in office serving 50 or more occupants does not swing in the direction of egress travel.	Modify the egress door to swing in the direction of egress travel.	Within 3 months
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F-5	Egress	The width of egress aisles in office are less than 36-in.	Provide minimum aisle widths of 36-in.	Within 3 months
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F-6	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
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F-7	Fire Protection	Inspection, testing, and maintenance for the fire alarm system it was 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
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F-8	Fire Protection	The building is not equipped with smoke alarms.	Provide automatic smoke detection throughout the building in accordance with NFPA 72.	Within 6 months
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F-9	Fire Protection	There were no fire alarm sirens provided in the office area.	Provide additional notification appliances such that the fire alarm system is audible throughout the building in accordance with NFPA 72.	Within 6 months
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F-10	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes in the knitting shed portion of the 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-11	Egress Lighting	Inspection, testing, and maintenance for the emergency lighting system was not in accordance with The ACCORD standard.	Inspect, test and maintain the emergency lighting system in accordance with The ACCORD standard. Keep written records on-site.	Within 3 months

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