

FIRE SAFETY INSPECTION REPORT

**BEQ KNIT LTD.
ZIRABO, ASHULIA, SAVAR, DHAKA**

**OTHER FACTORIES: BEQ SWEATERS LTD., TAMMAM
DESIGN LTD.**



ACC  **RD**
on Fire and Building Safety in Bangladesh

April 22, 2014

SUMMARY

Beq Knit Ltd. was surveyed for fire safety on 4/22/2014 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.

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 Accord for approval.

Table 1. Findings And Recommendations

No.	Category	Finding	Recommendation	Remediation Timeframe
F-1	Fire Rated Construction	<p>Flammable liquid storage area is not separated by fire-rated construction (openings, non-rated doors, penetrations).</p> <p>The chemical store in the Washing plant (ground floor) is exposed to the working areas.</p>	<p>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.</p>	<p>Within 3 months</p>



F-2	Fire Rated Construction	The boiler, generator and EMR room is not separated from the working areas of Beq Fabrics (adjacent building) by means of fire-rated construction (openings, non-rated doors, penetrations).	Separate the boiler, generator and EMR room from the adjacent working areas by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations.	Within 3 months
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F-3	Fire Rated Construction	<p>The Fabrics store on the 7th floor was not separated from the dining areas (openings and unrated doors). The Finished goods store (4th floor) exceeded the permitted limits and was open to the working areas. Other storage areas like the Bonded wear house (3rd floor), Fabrics store (2nd floor) and Accessories store (1st floor) also had issues related to separation.</p>	<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"> - Maximum height of 2.4m and maximum area of 23m² - If sprinkler protected: maximum height of 3.66m and maximum area of 93m² <p>Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.</p>	Within 3 months
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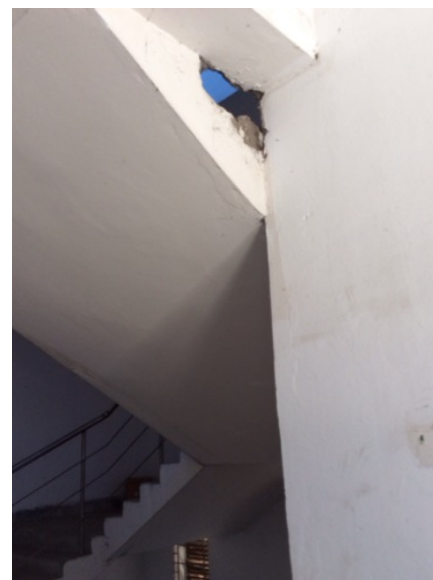




F-4	Fire Rated Construction	The exit stairs are not separated from work areas on each floor by fire-rated construction.	<p>Provide minimum 1.5-hr fire rated doors and seal all unprotected openings to separate the exit stairs from work areas and other building spaces on all floor levels. Ensure that the fire doors are self-closing and positive latching and that they are provided with fire exit (panic) hardware where serving production floors.</p> <p>If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.</p>	Within 3 months
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F-5	Fire Rated Construction	Unsealed penetrations and openings are located in exit stair enclosures.	Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separation.	Within 3 months
		Penetrations were observed in multiple locations such as the Western stair enclosure (7th floor), Northern stair enclosure (7th floor), Western stair enclosure (4th floor) etc.		





F-6	Fire Rated Construction	The exit discharge path of the Southern exit stair to the assembly point has a width less than 10 ft. and unprotected openings at a height of less than 10 ft.	Exterior building wall adjacent to passageway shall be rated 1-hr up to 10 ft. above grade.	Within 3 months
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F-7	Egress	<p>Egress doors / gates with locking features are provided at building exits, exit stairs, along egress routes, exit discharge.</p> <p>Locking features were found in numerous locations through out the building. Apart from the exit gates for the Southern stair enclosure (on the 7th and 1st floor) all gates/doors were found to be open and unlocked during the inspection.</p>	<p>Remove locking features from all egress doors / gates.</p> <p>If locks are required for security reasons, utilize special door locking features complying with NFPA 101.</p>	Immediate
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F-8	Egress	<p>Storage in the path of egress was found in various locations through out the building eg : Fabrics store (7th floor), Spinning section (ground floor).</p>	<p>Keep egress paths and stairs clear of storage.</p>	Immediate
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F-9 Egress

General storage was located in all the three stair enclosures.

Remove all storage from exit stairs and egress paths.

Immediate



F-10 Egress

Concertina type retractable doors were predominantly used in all the exits. Rolling steel doors with locking features were also found along the path of egress.

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

Within 1 month

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



F-11	Egress	No Emergency Evacuation Plans were posted within/next to exit stairs on the 1st, 2nd and Ground floor.	Provide readily visible/identifiable emergency evacuation plans within/next to all exit stairs.	Within 1 month
F-12	Egress	Exit capacity (471) is not adequate for the occupant load (500) for the dining area on the 7th floor.	<p>Immediately reduce occupant load to less than the available exit capacity.</p> <p>Or</p> <p>Unlock the Southern stair exit and provide a means of egress that does not require passage through the hazardous area.</p>	Within 3 months
F-13	Egress	The main egress door serving the Office area on the 1st floor does not swing in the direction of egress travel.	Modify the egress door to swing in the direction of egress travel.	Within 3 months



F-14	Egress	<p>The exits are not remotely located from each other such that a single fire event could compromise both exits.</p> <p>The Southern exit stair was found to be locked on the 1st and 7th floors. On these floors the Northern and Western, being the only functional stairs on the floors, were found to be non-remote.</p>	<p>Modify exit arrangement and insure that the Southern stair is usable on the mentioned floors.</p> <p>Provide sprinkler protection in accordance with NFPA 13.</p>	Within 3 months
F-15	Egress	<p>The egress path to the southern exit stair (7th floor) has to go through an area of increased hazard (combustible storage).</p>	<p>Provide 1-hr fire rated passageway that provides safe access to the Exit stair.</p>	Within 3 months



F-16	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-17	Fire Protection	<p>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.</p> <p>On all floors, except on the 1st and 7th floors, the smoke alarms were only provided near electrical panels. Smoke alarms were not present on the 1st and 7th floors.</p>	<p>Remove all single-station smoke alarms. Provide automatic smoke detection throughout the building in accordance with NFPA-72.</p>	<p>Within 1 months</p>
F-18	Fire Protection	<p>Inspection, testing, and maintenance records for the fire alarm system were not in accordance to NFPA 72.</p>	<p>Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.</p>	<p>Within 3 months</p>
F-19	Egress Lighting	<p>The florescent emergency lights inside the exit stair enclosures had manual on-off switches.</p>	<p>Remove manual on/off switches from emergency lighting units to prevent them from being switched off.</p>	<p>Within 1 month</p>



F-20	Egress Lighting	<p>Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes.</p> <p>The emergency lights were found to be inadequate in most of the stair enclosures.</p>	<p>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.</p>	Within 3 months
F-21	Egress Lighting	<p>Exit signs were found to be missing in many areas such as the Dining area (7th floor), the Southern and Western exit stairs, the Office area (1st floor), Washing areas (ground floor) etc.</p>	<p>Provide exit signs above all exits to the exterior and all doors to the exit stairs.</p>	Within 3 months



F-22	Egress Lighting	Broken and burned out exit signs were found on the 7th and 4th floor.	Regularly inspect all exit signage and replace/install lights as needed to illuminate signs.	Within 3 months
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F-23	Egress Lighting	Emergency lights were found to be missing on several floors eg: Northern stair enclosure (ground floor) etc.	Regularly test the emergency lighting system on each floor and replace/repair lights as needed.	Within 3 months
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F-24	Egress Lighting	Inspection, testing, and maintenance records for the emergency lighting system were not available.	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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