

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: RUNNING FASHIONS LTD
Address of the Factory	: C-124/125. Tongi BSCIC Industrial Estate, Tongi, Gazipur, Dhaka
Dhaka Present Status of the Factory	: Under Operation
Structural assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Structural Inspection	: 22 April, 2014
Fire & Electrical assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Fire & Electrical Inspection	: 29 April, 2014

Basic Information: The present garment factory is a commercial building with beam-column frame system. The following general information was noted:

i.	Building Usage Type	: Garment factory
ii.	Structural System	: R.C. Beam and column frame with a 2-way solid slab
iii.	Floor System	: Beam slab
iv.	Floor Area	: Each floor area of the building is 14066 sqft.
v.	No. of Stories	: 4 storied
vi.	Construction Year	: 2007
vii.	Foundation Type	: Pad foundation
viii.	Design Drawings	: Available (Signed in August, 2005)
ix.	Soil investigation Report	: Available (Dated April 2006)
x.	Construction Materials	: Unavailable
xi.	Generator	: Ground Floor, adjacent to the north stairwell

Recommendations for Corrective Action: The recommendations of corrective action for both Structural and Fire & Electrical Safety are as follows:

The recommendations for Structural Safety corrective actions are:

Immediate (Now): NA

Mid Term (Within 6 Weeks): NA

Long Term (Within 6 Months):

1. Parapet to be rendered to protect brickwork from deteriorating due to weathering.
2. Load Management Plans for each floor to be prepared.
3. Factory to monitor actual loadings to confirm compliance with the Load Management Plans.

The recommendations for Fire Safety corrective actions are:

Immediate (Within 1 month):

1. Remove locking features from all egress doors / gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.
2. Remove all storage from exit stairs and egress paths.
3. Keep egress paths and stairs clear of storage.

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4. 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.
5. Remove manual on/off switches from emergency lighting units to prevent them from being switched off.

Short Term (Within 3 Months):

1. 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.
2. Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Where separate storage rooms may not be 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.

3. 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.
4. Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.
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.
6. Inspect, test and maintain the emergency lighting system in accordance with The ACCORD standard. Keep written records on-site.

Mid Term (within 6 Months):

1. Replace the single-station smoke alarms. Provide automatic smoke detection throughout the building in accordance with NFPA 72.

Long Term (More than 6 months):

1. Replace the fire alarm system with a new, listed addressable fire alarm system in accordance with NFPA 72.

The recommendations for Electrical Safety corrective actions are:

Immediate (Within 1 month):

1. Service cable laid underground must be protected in rigid pipe.
2. Arcing horns may be installed as per the transformer manufacturer's instruction (may consult the supplier/servicing company).

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3. Establish a routine cleaning program to keep neat and clean the transformer room. Shut the power of the transformer and clean the exterior of the transformer at scheduled period.
4. Conduit wiring entering/leaving panel must be securely fixed to wall (near panel), supported on trays/ladder.
5. Make circular hole at the base plate of panels and provide cable gland according to the respective cable size for cable entry and exit so that the cables are not stressed on the sharp edges of the hole of panels. Provide covers (of non-combustible material) if any additional gap remains after installing cable glands.
6. Multiple cables connecting at a MCCB terminal must be removed. Individual circuit breaker must be used for each load according to the respective cable-size.
7. Make circular hole at the top plate of panels and provide cable gland according to the respective cable size for cable entry and exit so that the cables are not stressed on the sharp edges of the hole of panels. Provide covers (of non-combustible material) if any additional gap remains after installing cable glands.
8. Aluminium channel must be cover tightly to prevent the ingress of dirt and debris.
9. Install separators between different phases of MCCB. Standard separators provided by the MCCB manufacturer must be used.
10. Cables supported in ducts must be arranged and must be tightly covered to prevent ingress of lint and dust.
11. PVC conduit must be additionally supported on cable tray/ladder up to the panel. Flexible conduit must not be used for long point wiring (except for special wirings).
12. Cables must be protected, supported and installed through safe and prescribed routes. Existing cables passing through window and ventilators must be removed immediately.

Short Term (Within 3 Months):

1. PVC conduit/Cable must be supported in tray/ ladder in throughout the length of the cable.
2. Existing panel must be fixed with foundation bolts on foundation plinth or may be installed on wall at a reachable height.
3. Cables passing through permanent walls must be protected in steel pipes and remaining holes around the pipe must be sealed with fire rated materials.

Mid Term (Within 6 months): NA

Long Term (More than 6 months): NA