

## Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

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Name of the Factory	:	<b>B2B EXCELLENCE LTD</b>
Address of the Factory	:	Mirzapur Purbapara, 8 no. Mirzapur Mouza, Mirzapur.
Dhaka Present Status of the Factory	:	<b>Under Operation</b>
Structural assessment conducted by	:	Accord (Full report available at <a href="http://bangladeshaccord.org">bangladeshaccord.org</a> )
Date of Structural Inspection	:	25 June, 2014
Fire & Electrical assessment conducted by	:	Accord (Full report available at <a href="http://bangladeshaccord.org">bangladeshaccord.org</a> )
Date of Fire & Electrical Inspection	:	26 June, 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	:	The total floor area of the main building is 6,500 sq.ft.
v.	No. of Stories	:	3 storied
vi.	Construction Year	:	2012
vii.	Foundation Type	:	Unavailable
viii.	Design Drawings	:	Available
ix.	Soil investigation Report	:	Unavailable
x.	Construction Materials	:	Unavailable
xi.	Generator	:	Ground floor shed

**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):

1. Carry out an Engineering Assessment to verify if the stability system and the columns of the building are adequately designed to BNBC.
2. Carry out an Engineering Assessment to review the lateral stability of the building as per BNBC.
3. Carry out an Engineering Assessment to review the conditions and the stability of the staircase.
4. Carry out an Engineering Assessment to verify that the steel roof structures are properly designed and anchored.

Long Term (Within 6 Months):

1. Carry out recommendations of the Engineering Assessment.

**The recommendations for Fire Safety corrective actions are:**

Immediate (Within 1 month):

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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. 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.

### Short Term (Within 3 Months):

1. 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 23m<sup>2</sup>
  - If sprinkler protected: maximum height of 3.66m and maximum area of 93m<sup>2</sup>.Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.
2. 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.
3. Modify the egress door to swing in the direction of egress travel.
4. Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.
5. 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. 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. Alternatively, provide a second remote discharge path to the public way (only include this if feasible).

### Long Term (More than 6 months): NA

### **The recommendations for Electrical Safety corrective actions are:**

#### Immediate (Within 1 month):

1. Panel door must be connected with earth bond connecting frame and door.
2. MCCB (electrical devices) mounted on the wall must be installed with protective enclosures.
3. SLD and schematic drawings of electrical system should be developed. SLD shall show be maintained and continuously updated to reflect as built condition.

#### Short Term (Within 3 Months):

1. Excess service cable length must be supported and required length of service cable may be used.

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2. Cables must be firmly supported using base plate and cable gland to minimize stress at terminals.
3. Panel base must be securely fixed to the foundation, with appropriate fastening devices. Panel base frame may be used on foundation to mount the panel.
4. Install separators between different phases of MCCB. Standard separators provided by the MCCB manufacturer must be used.
5. Power cable passing through permanent walls must be protected and remaining gaps must be sealed with fire rated materials.
6. Replace the existing trench cover either with concrete slab covers or checkered plates. Existing cover must be additionally supported until it is replaced for safety.
7. Cables on floor must be laid through raised cable trench and covered throughout its length.
8. Trench should be properly covered and cables arranged inside the trench.

Mid Term (Within 6 months): NA

Long Term (More than 6 months): NA