

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

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Name of the Factory	: RUDMILA KNITWEAR LTD
Address of the Factory	: Kabirpur, Ashulia, Savar
Dhaka Present Status of the Factory	: <b>Under Operation</b>
Structural assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Structural Inspection	: 31 May, 2014
Fire & Electrical assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Fire & Electrical Inspection	: 9 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 factory is 55,851sq.ft.
v.	No. of Stories	: 4 storied
vi.	Construction Year	: 2009
vii.	Foundation Type	: Unavailable
viii.	Design Drawings	: Available
ix.	Soil investigation Report	: Unavailable
x.	Construction Materials	: Unavailable
xi.	Generator	: Ground floor generator room

**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. Structural Engineer to review existing conditions and provide structural drawings for various ancillary buildings.
2. Structural Engineer to assess load bearing capacity of each floor for main building and produce loading plans.

Long Term (Within 6 Months):

1. Post loading plans at each floor of main building and manage the load.

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

Immediate (Within 1 month):

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

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3. Remove all storage from exit stairs and egress paths.
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. Replace missing lighting.

### 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. Separate the boiler 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. 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. Remove single-station smoke alarms. Provide automatic smoke detection throughout the building, tied into the fire alarm system, 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. Cables terminating at distribution boards must be supported in risers and protected throughout its length till the panel base or top plate. The cable on the ceiling may be supported with cable tray and anchor to the ceiling. Power socket may be supported on the nonflammable material.

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2. The distribution boards may be protected by covering the holes with non-flammable materials.

### Short Term (Within 3 Months):

1. Power transformer must be installed as per standard requirement. Replace silica gel and must include in routine maintenance to check and maintain.
2. Transformer wheels must be removed or locked to prevent transformer from unintentional movement during operation. The cable may be protected with the cable tray.

### Mid Term (Within 6 months):

1. Transformer room may be rearranged or some of the panels may be relocated. Transformer may be separated from panels by constructing barrier walls.

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