

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

Name of the Factory : Dhaka Knitting Ltd.  
Address of the Factory : Plot # 14, Block # C, Avenue # 2 Section # 12, Mirpur,  
Dhaka-1216  
Present Status of the Factory : Under Operation  
Structural Assessment Conducted by : BUET  
Date of Structural Inspection : 18<sup>th</sup> November 2014

### **BASIC INFORMATION:**

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

- i. Building Usage Type : Primarily as Garments Factory
- ii. Structural System : RC beam column frame structure
- iii. Floor System : Edge supported RC solid floor slab system on RC beam.
- iv. Floor Area : Approx.400 m<sup>2</sup>/floor.
- v. No. of Stories : six
- vi. Construction Year : Ground Floor in 1992-1993, 1<sup>st</sup> Floor in 1998-1999, 2<sup>nd</sup> -5<sup>th</sup> Floor in 2001-2002
- vii. Foundation Type : Individual Foundation.
- viii. Design Drawings : Available
- ix. Soil Investigation Report : Available.
- x. Construction Materials : Reinforced concrete with stone chips in columns and foundations & brick chips in beams and slab (as reported). Steel rebars 60 Grade.
- xi. Generator : One Generator Ground Floor (Separate).

### **RECOMMENDATIONS FOR CORRECTIVE ACTION:**

The recommendations of corrective action for both Structural and Fire & Electrical Safety comprises in Short Term, Mid Term and Long Term basis.

The recommendations for **Structural Safety** corrective action are:

Short Term (Immediate) : None

Mid Term (6-weeks) : The factory owner has been instructed to prepare and submit a load plan for vetting.

Long Term (6-months) : None

The recommendations for **Fire & Electrical Safety** corrective action are:

Name of the Factory : Dhaka Knitting Ltd.

Fire & Electrical assessment conducted by : BUET

Date of Fire & Electrical Inspection : 20<sup>th</sup> December 2014

#### ***(A): Recommendations for Fire Safety corrective actions:***

Fire Safety Issues	
Immediate <i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i>	N/A

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<p>Short Term <i>(Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity)</i></p>	<p>Remove obstructions from all escape routes, aisles and passageways.</p> <p>Maintain minimum effective width of corridors, passageways and aisles.</p> <p>Make sure that portable extinguishers are easily accessible, monitored and maintained at regular interval as per the Guidelines.</p> <p>Provide proper directional signs and exit signs in Bangla and English as per the Guidelines.</p>
<p>Mid Term <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i></p>	<p>Remove temporary structures from roof top.</p> <p>Prepare drawings to ensure adequate horizontal and vertical fire-rated separation inside one floor and between different floors, e.g. separation with stairways, storage, offices, and work areas as per the Guidelines.</p> <p>Prepare plans to ensure all exit access doors are side-swinging type and open to the direction of traffic flow.</p> <p>Produce drawings to demonstrate how stairways are to be made of adequate dimensions and appropriate specifications and to be converted into fire-rated enclosures equipped with fire-rated doors.</p> <p>Also show methods to ensure proper separation of high risk areas (e.g., generator, boiler rooms) as per the Guidelines.</p> <p>Provide design to install standard standpipe, hose and fire pump system.</p> <p>Provide design to install proper detection and alarm system.</p> <p>Establish command station as per the Guidelines.</p>
<p>Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>	<p>Ensure adequate horizontal and vertical fire-rated separation inside one floor and between different floors, e.g. separation with stairways, storage, offices, and work areas.</p> <p>Ensure all exit access doors are side-swinging type and open to the direction of traffic flow.</p> <p>Ensure proper separation of high risk areas (e.g., generator, boiler rooms) as per the Guidelines.</p> <p>Install standard standpipe, hose and fire pump system. Install proper detection and alarm system.</p>

### **(B): Recommendations for Electrical Safety corrective actions:**

<b>Electrical Safety Issues</b>	
<p>Immediate <i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i></p>	<p>N/A</p>
<p>Short Term <i>(Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity)</i></p>	<p>Provide instructions for first aid and artificial respiration from exposure to electrical shock. Provide rubber mat in front of the panel.</p> <p>Ensure well-dressed cabling with lugs and remove loose cabling.</p> <p>Ensure earthing of panel door with fitted condition. Provide distribution board as per guideline and put identification mark on distribution panel.</p> <p>Remove the wooden board from MDB/SDB/SB or MCB.</p>

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Mid Term <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i>	Provide separate service shaft for electrical cables. Provide new Emergency Lighting system. Provide appropriate Lightning Protection System as per guidelines.
Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i>	N/A