

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

Name of the Factory	: Besta Apparels Ltd.
Address of the Factory	: 78/11, South Khapara Road, North Auchpara, Tongi, Gazipur
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 4 <sup>th</sup> November 2014

### **BASIC INFORMATION:**

The factory building is a 4 (four) storied Reinforced Concrete (RC) frame building. The following information was noted:

i.	Building Usage Type	: Garment Factory
ii.	Structural System	: RC beam-column framing system
iii.	Floor System	: RC beam supported slab
iv.	Floor Area	: Approximately 1541 m <sup>2</sup> per floor
v.	No. of Stories	: Four
vi.	Construction Year	: Unknown
vii.	Foundation Type	: Individual footing of different sizes:(7'-0" x 7'-0" to 9'-0" x 9'-0")
viii.	Design Drawings	: Available (Design Engineer: Mohammed Azim, B.Sc. Engg.(Civil), MIEB – 19384)
ix.	Soil Investigation Report	: Available (GOLDEN SOIL & FOUNDATION, Sarkar bari Road, East Arichpur, Ward#07, Tongi, Gazipur)
x.	Construction Materials	: Reinforced Concrete (No test report on construction materials is available), Coarse aggregate: <b>Brick chips</b>
xi.	Generator	: Ground Floor

### **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)	: The factory owner has to prepare and submit the load plan for all floors
Mid Term (6-weeks)	: None
Long Term (6-months)	: None

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

Name of the Factory	: Besta Apparels Ltd.
Fire & Electrical assessment conducted by	: BUET
Date of Fire & Electrical Inspection	: 23 <sup>rd</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 all temporary obstructions from all escape routes, aisles and passageways.</p> <p>Ensure minimum width of corridors, passageways and aisles.</p> <p>Ensure monitoring and maintaining the fire extinguisher at required interval as per guidelines.</p> <p>Provide proper directional sign and exit sign in Bangla and English as per guidelines.</p>
<p>Mid Term <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i></p>	<p>Produce proper drawing and plans to create horizontal and vertical fire-rated separation for stairways of appropriate specifications, grills, storage, offices, work areas.</p> <p>Remove all collapsible gates/roller shutters/sliding doors.</p> <p>Produce design 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 side swinging doors of required dimensions opening in the direction of travel at each floor.</p> <p>Prepare plans to ensure all exit access doors are side- swinging type and open to the direction of traffic flow.</p> <p>Also design to ensure proper separation of high risk areas (e.g., generator, boiler rooms) as per guidelines.</p> <p>Provide design to install proper detection and alarm system.</p>
<p>Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>	<p>Install horizontal and vertical fire-rated separation for stairways of appropriate specifications, grills, storage, offices, 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 fire separation of high risk areas (e.g., generator, boiler rooms) as per approved design.</p> <p>Install fire rated enclosure and doors of appropriate dimensions at exit to the stairs to prevent smoke and fire propagation as per approved design.</p> <p>Install standard standpipe, hose system.</p> <p>Install proper detection and alarm system.</p> <p>Provide fire rated enclosure, install self-closing fire rated door as per guidelines.</p>

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

<p align="center"><b>Electrical Safety Issues</b></p>	
<p>Immediate <i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i></p>	<p align="center">N/A</p>

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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>Provide instructions for first aid and artificial respiration from exposure to electrical shock. Ensure well-dressed cabling with lugs. Ensure earthing of panel body &amp; door with fitted condition. Provide distribution board as per guideline and put identification mark on distribution panel.</p>
<p>Mid Term <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i></p>	<p>Provide new Emergency Lighting system. Provide appropriate Lightening Protection System as per guidelines.</p>
<p>Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>	