

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

Name of the Factory	: Shonest Apparels (Part 2 of 3: 7-Storeyed Concrete Building Part)
Address of the Factory	: "Azim Tower" at Plot – 217/1-A, Beri Bandh, Mohammadpur, Dhaka – 1207
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 13 <sup>th</sup> December 2013

### **BASIC INFORMATION:**

The two factories, Nasreen Garments Ltd. & Shonest Apparels are located in a cluster building complex (Azim Tower) comprising of three adjoining buildings. The following information was noted:

i. Building Usage Type	: Garment Factory
ii. Structural System (7 storied)	: RC beam-column frame (GF) and RC flat plate with shallow edge beam (1 <sup>st</sup> to 6 <sup>th</sup> floors)
iii. Floor System (7 storied)	: Beam supported slab (GF) and RC flat plate with shallow edge beam (1 <sup>st</sup> to 6 <sup>th</sup> floors)
iv. Floor Area (7 storied)	: Approximately 1,850 sft per floor
v. No. of Stories (7 storied)	: Seven storied
vi. Construction Year (7 storied)	: During 2010-2012
vii. Foundation Type (for all)	: 20" diameter 60' to 70' long piles (as per drawing & as reported)
viii. Design Drawings	: Available
ix. Soil Boring Report	: Available (done in January 2001)
x. Construction Materials	: Reinforced Concrete (brick and stone chips, as reported)
xi. Generator	: Outside the building

### **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)	: Average live load is to be limited to 40psf (2 kN/m <sup>2</sup> ) on all floors.
Mid Term (6-weeks)	: None
Long Term (6-months)	: A Detail Engineering Assessment (DEA) has to be completed. Necessary remediation's after completion of DEA.

Name of the Factory	: Shonest Apparels Ltd.
Fire & Electrical assessment conducted by	: BUET
Date of Fire & Electrical Inspection	: 20 December 2013

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

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</p> <p><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>Remove all combustible materials from generator room.</p> <p>Ensure minimum width of corridors, Passageways and aisles.</p> <p>Ensure easy access to portable extinguishers and monitor and maintain the same 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</p> <p><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 and assembly areas, basement, lift lobby, offices, work areas. Also design to ensure proper separation of high risk areas (e.g., generator, boiler, transformer and substation rooms) as per guidelines.</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>Produce design to install standard standpipe, hose and fire pump system.</p> <p>Provide design to install proper detection and alarm system.</p> <p>Install command station as per guidelines.</p>
<p>Long Term</p> <p><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, grills, storage and assembly areas, basement, lift lobby, offices, work areas.</p> <p>Ensure proper fire separation of high risk areas (e.g., generator, boiler, transformer and substation rooms) as per approved design</p> <p>Install fire rated enclosure and doors at exit to the stairs to prevent smoke and fire propagation as per approved design</p> <p>Install standard standpipe, hose and fire pump 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>

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

Immediate  <i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i>	N/A
Short Term  <i>(Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity</i>	Provide instructions for first aid and artificial respiration from exposure to electrical shock.  Ensure earthing of panel body & door with fitted condition.
Mid Term  <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i>	Provide separate service ducts for electrical cables.  Provide new Emergency Lighting system  Provide appropriate Lightening 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