

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

Name of the Factory	: Strees Fashion Int'L Ltd.
Address of the Factory	: Tenguri (Pukur Par), Bksp, Zirani, Ashulia, Savar, Dhaka
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 25 <sup>th</sup> December 2013
Fire & Electrical Assessment Conducted by	: BUET
Date of Fire & Electrical Inspection	: 27 <sup>th</sup> December 2013

### **BASIC INFORMATION:**

The factory building is a three storied RC structure with no basement. The following information was noted:

i. Building Usage Type	: Garment factory
ii. Structural System	: Beam-Column frame system, flat plate system and steel structure at roof. In the west part of the building there is flat plate system in 1 <sup>st</sup> floor.
iii. Floor System	: Edge supported RCC slabs. But In the west part of the building there is flat plate system in 1 <sup>st</sup> floor roof slab.
iv. Floor Area	: Approximately (10500+10500)sq.ft per floor ( <b>typical grid spacing: 12'x15'</b> )
v. No. of Stories	: <b>Three story</b>
vi. Construction Year	: No information (Rented property)
vii. Foundation Type	: Shallow footing as per drawing
viii. Design Drawings	: As-built drawing submitted (Flat plate system not shown)
ix. Soil Boring Report	: Available
x. Construction Materials	: Reinforced Concrete and steel structure roof
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)	: The factory owner has been instructed to prepare and submit a load plan for vetting
Mid Term (6-weeks)	: A Detail Engineering Assessment (DEA) has to be completed.
Long Term (6-months)	: Necessary remediation's after completion of DEA.

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

#### ***(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 adequate numbers of fire drills.</p> <p>Ensure easy access to portable extinguishers and monitor and maintain the same at required interval as per guidelines.</p> <p>Provide 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, 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>Remove all collapsible gates/roller shutters/sliding doors. 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>Provide design to install proper detection and alarm system.</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 of appropriate specifications, grills, storage and assembly areas, 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 of appropriate dimensions at exit to the stairs to prevent smoke and fire propagation as per approved design.</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>Immediate</p> <p><i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i></p>	<p>N/A</p>
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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>Provide instructions for first aid and artificial respiration from exposure to electrical shock.</p> <p>Ensure well-dressed cabling with lugs and remove loose cabling.</p> <p>Ensure earthing of panel body &amp; door with fitted condition.</p> <p>Provide distribution board as per guideline and put identification mark on distribution panel.</p> <p>Remove burn/broken/loose MCB/MCCB box/socket.</p>
<p>Mid Term</p> <p><i>(The remedial works indicated must be carried out within a period of 6 weeks)</i></p>	<p>Provide separate service ducts for electrical cables.</p> <p>Provide new Emergency Lighting system.</p> <p>Provide appropriate Lightning Protection System 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>N/A</p>