

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

Name of the Factory	: Biswas Fashion Ltd.
Address of the Factory	: Rajfulbaria, Savar, Dhaka-1347
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 7 <sup>th</sup> November 2014

### **BASIC INFORMATION:**

A floor plan of the building approved in 2001 by the Department of Inspection for Factories and Establishments was available during the visit. On the basis of visual observations and discussion with the personnel present, the following information was noted:

i.	Building Usage Type	: Garments factory
ii.	Structural System	: GF-3F: Reinforced Concrete (RC) beam-column framing system; 4F: About 40% RC frame on South side, about 40% Steel structure (truss supported tin roof on steel pipes), about 20% open to sky.
iii.	Floor System	: RC beam supported slab
iv.	Floor Area	: Approximately 14500 sft per floor
v.	No. of Stories	: 5 (Five)
vi.	Construction Year	: Initially constructed in 1990-1995. From the floor plan approved in 2001, it appears that horizontal extension on the south side was made after 2001.
vii.	Foundation Type	: Pile foundation (as per owner's information)
viii.	Design Drawings	: Not available
ix.	Soil Investigation Report	: Available (The Soil & Foundation Engineers, B-210 Khilgaon Chowdhury Para, Dhaka 1219, March 1995)
x.	Construction Materials	: Reinforced Concrete (No test report on construction materials is available), Coarse aggregate: <b>Brick chips</b>
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)	: None
Mid Term (6-weeks)	: A Detail Engineering Assessment (DEA) has to be completed.
Long Term (6-months)	: Load plan shall have to be prepared after DEA. Necessary remediation's after completion of DEA.

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

Name of the Factory	: Biswas Fashion Ltd.
Fire & Electrical assessment conducted by	: BUET
Date of Fire & Electrical Inspection	: 3 <sup>rd</sup> December 2014

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

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

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<p><i>Short Term</i> (Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity)</p>	<p>Remove obstructions from all escape routes, aisles and passageways.</p> <p>Maintain minimum effective width of corridors, passageways and aisles.</p> <p>Remove all combustible materials from generator room</p> <p>Confirm adequate numbers of fire drills.</p> <p>Ensure 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><i>Mid Term</i> (The remedial works indicated must be carried out within a period of 6 weeks)</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, assembly areas, 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 and substation 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><i>Long Term</i> (The remedial works indicated must be carried out within a period of 6 months)</p>	<p>Ensure adequate horizontal and vertical fire-rated separation inside one floor and between different floors, e.g. separation with stairways, storage, assembly areas, 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>Install stairways of adequate dimensions and appropriate specifications and convert into continuous fire-rated enclosures equipped with fire-rated doors.</p> <p>Ensure proper separation of high risk areas (e.g., generator, substation rooms) as per the Guidelines.</p> <p>Install standard standpipe, hose and fire pump system.</p> <p>Install proper detection and alarm system.</p>

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

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

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<p><i>Short Term</i>  <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>Provide cover on the cable trench and 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 body &amp; door with fitted condition.</p> <p>Provide distribution board as per guideline and put identification mark on distribution panel.</p>
<p><i>Mid Term</i>  <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i></p>	<p>Provide new Emergency Lighting system.</p> <p>Provide appropriate Lightening Protection System as per guidelines.</p>
<p><i>Long Term</i>  <i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>	<p style="text-align: center;">N/A</p>