

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

Name of the Factory	: B. Brothers Garments Co. Ltd. (U-2)
Address of the Factory	: 90, Barapara, Rupshi, Rupganj, Narayanganj
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 16 <sup>th</sup> November 2014

### **BASIC INFORMATION:**

The factory building is a 4 storied RC structure and has reinforced concrete beam-column framing system structure. The following information was noted:

i.	Building Usage Type	: Garment factory
ii.	Structural System	: Beam-Column frame system
iii.	Floor System	: Edge supported RC slabs
iv.	Floor Area	: Approximately 11,000 sq.ft per floor
v.	No. of Stories	: Four stories
vi.	Construction Year	: 2000 as per verbal information.
vii.	Foundation Type	: Not available
viii.	Design Drawings	: Not available
ix.	Soil Investigation Report	: Not available
x.	Construction Materials	: Reinforced Concrete
xi.	Generator	: Outside

### **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. As-built drawing needs to be prepared. The tin-shed roof over 3 <sup>rd</sup> floor is to be removed. Damping in the wall and at some portions of the slab should be taken care of.
Mid Term (6-weeks)	: None
Long Term (6-months)	: None

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

Name of the Factory	: B. Brothers Garments Co. Ltd. (U-2)
Fire & Electrical assessment conducted by	: BUET
Date of Fire & Electrical Inspection	: 15 <sup>th</sup> November 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 (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>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>Mid Term (The remedial works indicated must be carried out within a period of 6 weeks)</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. 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, transformer 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>Long Term (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, offices, and work areas.</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 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, transformer and 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>Immediate (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>Short Term (Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity)</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>Mid Term (The remedial works indicated must be carried out within a period of 6 weeks)</p>	<p>Provide appropriate Lightning Protection System as per guidelines.</p> <p>Provide new Emergency Lighting system.</p>
<p>Long Term (The remedial works indicated must be carried out within a period of 6 months)</p>	<p>N/A</p>