

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

Name of the Factory	: Jahura Kamal Apparels Ltd.
Address of the Factory	: Ranimahal, Sharulia, Demra, Dhaka
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 30 <sup>th</sup> September 2014

### **BASIC INFORMATION:**

The factory building is a four storied reinforced concrete framed structure and there is a gable frame steel shed on the roof. The following information was noted:

i.	Building Usage Type	: Garment factory
ii.	Structural System	: Beam-column RC frame structure and steel gable supported shed on roof.
iii.	Floor System	: RC edge supported slab
iv.	Floor Area	: Approximately 9500sft per floor with typical grid of 23ft by 19ft
v.	No. of Stories	: Four and steel gable supported shed on roof.
vi.	Construction Year	: 2001
vii.	Foundation Type	: Pile foundation
viii.	Design Drawings	: Design drawings as in Approval Drawing are available [prepared by Engr. Md. Rezaul Aleem (FIEB-8523)]
ix.	Soil Investigation Report	: Not available
x.	Construction Materials	: Reinforced Concrete; Concrete is made with Stone Chips (verified by breaking), 40 grade mild steel reinforcing bar
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)	: None
Long Term (6-months)	: None

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

Name of the Factory	: Johura Kamal Apparels Ltd.
Fire & Electrical assessment conducted by	: BUET
Date of Fire & Electrical Inspection	: 25 <sup>th</sup> September 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 obstructions from all escape routes, aisles and passageways.</p> <p>Maintain minimum effective width of corridors, passageways and aisles.</p> <p>Confirm adequate numbers of fire drills.</p> <p>Make sure 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 <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i></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, 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., boiler) as per the Guidelines.</p> <p>Provide design to install proper detection and alarm system. Establish command station as per the Guidelines.</p>
<p>Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i></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>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., boiler) as per the Guidelines.</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:**

Electrical Safety Issues	
<p>Immediate <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 <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 cable trench with cover 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. Provide distribution board as per guideline and put identification mark on distribution panel.</p> <p>Remove burnt/broken/loose MCB/MCCB box/socket.</p>
<p>Mid Term <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 <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>