

## 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   |     |
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| Immediate<br><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<br/><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<br/><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<br/><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<br/><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<br/><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<br/><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<br/><i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>  | <p>N/A</p>  |