

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

Name of the Factory	: April Fashions Ltd.
Address of the Factory	: Plot # 115, Khapara Road, Tongi, Gazipur
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 8 <sup>th</sup> May 2014

### **BASIC INFORMATION:**

The factory building is a four storied RC structure. The building has reinforced concrete beam-column framing system structure in the first floor and flat plate system in the upper floors. 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 9000 sq.ft per floor (typical grid spacing: 12'x19')
- v. No. of Stories : Four story
- vi. Construction Year : 2010
- vii. Foundation Type : Shallow footing (as per drawing)
- viii. Design Drawings : Available but differs substantially with actual layout
- ix. Soil Investigation Report : Available
- x. Construction Materials : Reinforced Concrete
- 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. Live load should be limited to 40 psf.
- 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:

Name of the Factory	: April Fashions Ltd.
Fire & Electrical assessment conducted by	: BUET
Date of Fire & Electrical Inspection	: 15 <sup>th</sup> September 2014

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

<b>Fire Safety Issues</b>	
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>Remove all combustible materials from transformer, substation, boiler and generator room, if exists.</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>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., generator, boiler, transformer and substation rooms) as per the Guidelines.</p> <p>Provide design to install proper detection and alarm system.</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., generator, boiler, transformer and substation rooms) 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:**

<p style="text-align: center;"><b>Electrical Safety Issues</b></p>	
<p>Immediate <i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i></p>	<p style="text-align: center;">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. Provide cable trench with cover and rubber mat in front of the panel. Ensure well-dressed cabling with lugs and remove loose cabling. Ensure earthing of panel body &amp; door with fitted condition. Provide distribution board as per guideline and put identification mark on distribution panel. Remove burn/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. Provide new Emergency Lighting system.</p>
<p>Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>	<p>N/A</p>