

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

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Name of the Factory : Cambridge Garments Ltd.  
Address of the Factory : “Feroza Complex” 121 New Airport Road (Old), 88 Kazi Nazrul Islam Avenue, Tejturi Bazar, Farmgate, Tejgaon, Dhaka – 1215  
Present Status of the Factory : Under Operation  
Structural Assessment Conducted by : BUET  
Date of Structural Inspection : 25<sup>th</sup> December 2013

### **BASIC INFORMATION:**

The Cambridge Garments factory building is a seven storied RC frame building with a basement and with a tin shed furniture factory occupying approximately 80% area of the roof. The following information was noted:

- i. Building Usage Type : Mixed Occupancy. Shops, Showrooms & Garment Factories
- ii. Structural System : RC frame building (beam-column framing)
- iii. Floor System : RC beam supported slabs
- iv. Floor Area : Approximately 8800 sft per typical floor (as per drawing)
- v. No. of Stories : Seven storied with a basement and with two floors on part of roof
- vi. Construction Year : 1979-1986
- vii. Foundation Type : Raft (as per drawing)
- viii. Design Drawings : Available
- ix. Soil Boring Report : Available (done in August 2013)
- x. Construction Materials : Reinforced Concrete
- xi. Generator : In GF

### **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) : Average live loading is to be limited to 60psf (3 kN/m<sup>2</sup>) on all floors.
- Mid Term (6-weeks) : None
- Long Term (6-months) : A Detail Engineering Assessment (DEA) has to be completed. Necessary remediation's after completion of DEA.

Name of the Factory : Cambridge Garments Ltd.  
Fire & Electrical assessment conducted by : BUET  
Date of Fire & Electrical Inspection : 20 December 2013

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

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</p> <p><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 all temporary obstructions from all escape routes, aisles and passageways.</p> <p>Remove all combustible materials from generator room.</p> <p>Ensure minimum width of corridors, passageways and aisles.</p> <p>Ensure easy access to portable extinguishers and monitor and maintain the same at required interval as per guidelines.</p> <p>Provide proper directional sign and exit sign in Bangla and English as per guidelines</p>
<p>Mid Term</p> <p><i>(The remedial works indicated must be carried out within a period of 6 weeks)</i></p>	<p>Produce proper drawing and plans to create horizontal and vertical fire-rated separation for stairways of appropriate specifications, grills, storage and assembly areas, basement, offices, work areas. Also design to ensure proper separation of high risk areas (e.g., generator, boiler, transformer and substation rooms) as per guidelines.</p> <p>Remove all collapsible gates. Produce design 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 side swinging doors of required dimensions opening in the direction of travel at each floor.</p> <p>Produce 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</p> <p><i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>	<p>Install horizontal and vertical fire-rated separation for stairways, grills, storage and assembly areas, basement, offices, work areas.</p> <p>Ensure proper fire separation of high risk areas (e.g., generator, boiler, transformer and substation rooms) as per approved design</p> <p>Install fire rated enclosure and doors at exit to the stairs to prevent smoke and fire propagation as per approved design</p> <p>Install standard standpipe, hose and fire pump system.</p> <p>Install proper detection and alarm system.</p> <p>Provide fire rated enclosure, install self closing fire rated door as per guidelines.</p>

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

<p>Immediate</p> <p><i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i></p>	<p>N/A</p>
<p>Short Term</p> <p><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>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</p> <p><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</p> <p><i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>	<p>. N/A</p>