

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

Name of the Factory	: Camarina Composite Limited
Address of the Factory	: Plot A-1,2,3 B-1,2 S-1,2 Bscic Industrial Estate, Dhamrai, Dhaka-1350
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 4 <sup>th</sup> November 2014

### **BASIC INFORMATION:**

The factory building is currently a three storied building, with RC beam column framing system, designed and approved for six story. The following information was noted:

- i. Building Usage Type : Garment factory.
- ii. Structural System : RC beam column frame structure.
- iii. Floor System : Edge supported RC solid floor slab system on RC beam.
- iv. Floor Area : Approximately 6,250 sft per floor.
- v. No. of Stories : At present 03 (N-W), 02 (S-W) against design and approval of six.
- vi. Construction Year : 2009-2011.
- vii. Foundation Type : Pile foundation (as per as design drawing, May 2011).
- viii. Design Drawings : Available, AIA & ASSOCIATES LTD., HOUSE # 350, ROAD # 26, NEW DOHS, MOHAKHALI, DHAKA (May 2011).
- ix. Soil Investigation Report : Available, SYNERGY DESIGN & DEVELOPMENT, HOUSE #43/R-10, PANTHAPATH, INDIRA ROAD, DHAKA-1215 (June 2010).
- x. Construction Materials : Reinforced concrete with stone chips (verified) and deformed rebars 60 Grade (from year of construction).
- xi. Generator : In a separate 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) : None
- Mid Term (6-weeks) : The factory owner has been instructed to prepare and submit a load plan for vetting
- Long Term (6-months) : None

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

Name of the Factory	: Camarina Composite Limited
Fire & Electrical assessment conducted by	: BUET
Date of Fire & Electrical Inspection	: 29 <sup>th</sup> October 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 all 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/ generator room.</p> <p>Provide proper directional sign and exit sign in Bangla and English as per guidelines.</p>
<p>Mid Term <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 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>Ensure all exit access doors are side-swinging type and open to the direction of traffic flow.</p> <p>Remove all collapsible gates/roller shutters/sliding doors.</p> <p>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>Long Term <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 of appropriate specifications, grills, storage 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 of appropriate dimensions at exit to the stairs to prevent smoke and fire propagation as per approved design.</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>
<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 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>Remove burn/broken/loose MCB/MCCB box/socket.</p>

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Mid Term <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i>	Provide separate service ducts for electrical cables. Provide new Emergency Lighting system.
Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i>	N/A