

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory : Brilliane Sweater Limited
 Address of the Factory : Joyertek, Konabari, Gazipur
 Present Status of the Factory : Under Operation
 Structural Assessment Conducted by : BUET
 Date of Structural Inspection : 20th February 2014
 Fire & Electrical Assessment Conducted by : BUET
 Date of Fire & Electrical Inspection : 12th February 2014

BASIC INFORMATION:

The factory building is a commercial 3 (three) storied RC frame building. The following information was noted:

- i. Building Usage Type : Garments factory building
- ii. Structural System : RC Frame Building
- iii. Floor System : RC beam supported slab.
- iv. Floor Area : Approximately 6864 sft (638 sq. m) per floor (Grid spacing approximately 20 ft × 22 ft)
- v. No. of Stories : Existing three story but designed for eight story
- vi. Construction Year : 2011-2013.
- vii. Foundation Type : Isolated column footing (as per drawing)
- viii. Design Drawings : Structural & Architectural drawing is available.
- ix. Soil Boring Report : Available (Brown stiff clay layer with N = 10 is at 1.5 m below from EGL as per soil boring report). Dated: March-2011
- x. Construction Materials : Reinforced Concrete (Brick Chips)
- xi. Generator : Outside of 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) : None
- Mid Term (6-weeks) : None
- Long Term (6-months) : None

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

(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
Short Term <i>(Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity</i>	Remove all temporary obstructions from all escape routes, aisles and passageways. Remove all combustible materials from generator room. Ensure minimum width of corridors, passageways and aisles. Ensure adequate numbers of fire drills. Ensure easy access to portable extinguishers and monitor

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	<p>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, 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>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 of appropriate specifications, grills, storage and assembly areas, 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> <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>Immediate</p> <p><i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i></p>	N/A
<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>Ensure well-dressed cabling with lugs and remove loose cabling.</p> <p>Ensure earthing of panel body & door with fitted condition.</p> <p>Provide distribution board as per guideline and put identification mark on distribution panel.</p> <p>Remove broken/loose MCB/MCCB box/socket.</p>
<p>Mid Term</p> <p><i>(The remedial works indicated must be)</i></p>	<p>Provide separate service ducts for electrical cables.</p> <p>Provide new Emergency Lighting system.</p>

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<i>carried out within a period of 6 weeks)</i>	Provide appropriate Lightning Protection System as per guidelines.
Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i>	N/A