

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory : Stitchwell Designs Ltd.
Address of the Factory : 430/1, Tejgaon Industrial Area, Dhaka-1208
Present Status of the Factory : Under Operation
Structural Assessment Conducted by : BUET
Date of Structural Inspection : 27th December 2013
Fire & Electrical Assessment Conducted by : BUET
Date of Fire & Electrical Inspection : 27th December 2013

BASIC INFORMATION:

Two factories **Stitchwell Designs Ltd. and Apparel Stitch Ltd.** are running under the same ownership and management. **These two factories are housed in two separate buildings.** The following information was noted:

- i. Building Usage Type : Garment factory building
- ii. Structural System : Dual system as mentioned above
- iii. Floor System : RCC slabs with beams in the 1st floor and the remaining floors are supported as flat plate with no edge beams (Eastern Part). Up to 4th floor RCC slabs with beams and remaining floors are flat plate (Western Part).
- iv. Floor Area : Approximately 1116 and 744 sq. m (12000 sft for GF to 5th and 8000 sft for 6th to 8th) per floor.
- v. No. of Stories : Six story old Unit (Western part) and **9 story New Unit (Eastern Part)**
- vi. Construction Year : In phases, for old building, before 1990 and for new building, 1996-2000 and 2000-2010
- vii. Foundation Type : Wooden Piles for Old Unit & RCC Cast-In-Situ Pile for New Unit
- viii. Design Drawings : Available (**There is no date in all drawings for New Unit, Eastern Part**)
- ix. Soil Investigation Report : Available (Construction Corporation, 28/F, Toynbee Circular Road, Motijheel C/A, Dhaka, 1996)
- x. Construction Materials : Reinforced Concrete, Brick Chips
- xi. Generator : Ground Floor

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) : 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:

(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 substation/generator room.</p> <p>Ensure minimum width of corridors, passageways and aisles.</p> <p>Ensure adequate numbers of fire drills.</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, lift lobby, 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/roller shutters/sliding doors. 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>Install command station 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>Install horizontal and vertical fire-rated separation for stairways of appropriate specifications, grills, storage and assembly areas, basement, lift lobby, 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 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:

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>	Provide instructions for first aid and artificial respiration from exposure to electrical shock. Provide cover on the cable trench and rubber mat in front of the panel. Ensure well-dressed cabling with lugs and remove loose cabling. Ensure earthing of panel body & door with fitted condition. Provide distribution board as per guideline and put identification mark on distribution panel.
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. 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