

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory : Sujan Apparels Ltd.
Address of the Factory : Plot # 06, Bharari Para, National University, Joydebpur, Gazipur
Present Status of the Factory : Under Operation
Structural Assessment Conducted by : BUET
Date of Structural Inspection : 21st November 2013

BASIC INFORMATION:

The factory building is a 6 (six) storied Reinforced Concrete (RC) frame building. The following information was noted:

- i. Building Usage Type : Garment factory building
- ii. Structural System : Mixed of RC Frame and RC Flat Plate structure
- iii. Floor System : Partially RC beam supported slab and partially RC column supported slab
- iv. Floor Area : Approximately 424.89 sq. m. (= 4575 sft) per floor (Ground floor to 1st floor), 259.11 sq.m. (= 2790 sft) per floor (2nd floor to 5th floor).
- v. No. of Stories : Existing six storied building
- vi. Construction Year : 2007-2010
- vii. Foundation Type : Isolated column footings (as per drawing)
- viii. Design Drawings : Available
- ix. Soil Investigation Report : Available (B. D. C. Soil & Foundation Engineers, Middle Badda, Dhaka, August 2007)
- x. Construction Materials : Reinforced Concrete (No test report on construction materials is available), Coarse aggregate: Brick chips
- xi. Generator : Located in the 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) : Intensity of load does not exceed 60 psf (3 kN/m²).
- 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 : Sujan Apparels Ltd.
Fire & Electrical assessment conducted by : BUET
Date of Fire & Electrical Inspection : 16th January 2014

(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>	Close the improper steel stairway from the ground floor to first floor discharging into open air.
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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 temporary obstructions from all escape routes, aisles and passageways.</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 <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i></p>	<p>Remove temporary structure from roof top.</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, 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 <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, 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>

(B): Recommendations for Electrical Safety corrective actions:

<p>Immediate <i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i></p>	<p>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.</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 & door with fitted condition.</p> <p>Provide distribution board as per guideline and put identification mark on distribution panel.</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.</p> <p>Provide new Emergency Lighting system.</p> <p>Provide appropriate Lightening Protection System as per guidelines.</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>