

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory : Techno Fashion
Address of the Factory : 1028, Shahor Khilgaon, Malibag, Dhaka
Present Status of the Factory : Under Operation
Structural Assessment Conducted by : BUET
Date of Structural Inspection : 20th December 2013

BASIC INFORMATION:

The factory is located in the 1st to 3rd floors of a six storied RC frame building with a semi-basement. The following information was noted:

- i. Building Usage Type : Mixed (Market, Stores & Garment Factory)
- ii. Structural System : RC frame Building
- iii. Floor System : RC beam supported
- iv. Floor Area : Approximately 4340 sft per floor
- v. No. of Stories : Seven (including basement)
- vi. Construction Year : 1992-1995
- vii. Foundation Type : Individual & combined footings (as per drawing)
- viii. Design Drawings : Available
- ix. Soil Boring Report : Available (done in July 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 load is to be limited to 40psf (2 kN/m²) on all floors.
- Mid Term (6-weeks) : A Detail Engineering Assessment (DEA) has to be completed.
- Long Term (6-months) : Necessary remediation's after completion of DEA.

Name of the Factory : Techno Fashion
Fire & Electrical assessment conducted by : BUET
Date of Fire & Electrical Inspection : 14 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/roller shutters. 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, 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 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>	<p>N/A</p>
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Short Term <i>(Actions that must be incorporated into a Fire Safety Management Plan immediately(a week) and should be a regular activity</i>	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 Lightening 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