

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory : Speedwell Ltd.
 Address of the Factory : Plot # M-4/2, Road # 7, Section # 7, Mirpur, Dhaka-1216
 Present Status of the Factory : Under Operation
 Structural Assessment Conducted by : BUET
 Date of Structural Inspection : 20th October 2014

BASIC INFORMATION:

The factory building is a 4 storied RC structure and has reinforced concrete beam-column framing system structure. The following information was noted:

- i. Building Usage Type : Garment factory
- ii. Structural System : Beam-Column frame system
- iii. Floor System : Edge supported RC slabs
- iv. Floor Area : Approximately 4,000 sq.ft per floor (Typical grid size 19' x 19')
- v. No. of Stories : Four stories
- vi. Construction Year : 1996 as per verbal information
- vii. Foundation Type : Shallow foundation (As per drawing)
- viii. Design Drawings : Available (but no signature on it)
- ix. Soil Boring Report : Available
- x. Construction Materials : Reinforced Concrete
- xi. Generator : At 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) : The steel staircase at the outside (south side) is not properly supported. Design review of the steel stair is necessary. The crack observed at the bottom side of the cantilever slab should be repaired.
- 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 : Speedwell Limited
 Fire & Electrical assessment conducted by : BUET
 Date of Fire & Electrical Inspection : 6th December 2013

(A): Recommendations for Fire Safety corrective actions:

Immediate (the factory should not continue to be occupied until these non-conformities have been rectified):	N/A
Short Term (Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity	Remove all temporary obstructions from all escape routes, aisles and passageways. Remove all combustible materials from substation/ generator room. Ensure minimum width of corridors, passageways and aisles. Ensure easy access to portable extinguishers and monitor and maintain the same at required interval as per guidelines. Provide proper directional sign.
Mid Term (The remedial works indicated must be carried out within a period of 6 weeks)	Produce proper drawing and plans to create horizontal and vertical fire-rated separation for stairways of appropriate

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	<p>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>Produce design to install standard standpipe, hose and fire pump system.</p> <p>Provide design to install proper detection and alarm system.</p>
<p>Long Term (The remedial works indicated must be carried out within a period of 6 months)</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 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 (the factory should not continue to be occupied until these non-conformities have been rectified):</p>	N/A
<p>Short Term (Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity)</p>	<p>Provide instructions for first aid and artificial respiration from exposure to electrical shock.</p> <p>Provide cover on the cable trench.</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 (The remedial works indicated must be carried out within a period of 6 weeks)</p>	<p>Provide separate service ducts for electrical cables.</p> <p>Provide new Emergency Lighting system.</p> <p>Provide appropriate Lightning Protection System as per guidelines.</p>
<p>Long Term (The remedial works indicated must be carried out within a period of 6 months)</p>	N/A