

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: Deys Sweaters Industries Ltd.
Address of the Factory	: Gazirchat Uttar, Burir Bazar, Ashulia, Dhaka
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 6 th December 2013
Fire & Electrical Assessment Conducted by	: BUET
Date of Fire & Electrical Inspection	: 16 th January 2014

BASIC INFORMATION:

The factory building is a three storied RC beam column frame structure. The following information was noted:

- i. Building Usage Type : Mostly garment factory building, Shops at GF and fish & vegetables market at the basement floor.
- ii. Structural System : RC Frame Building
- iii. Floor System : Edge supported RCC slabs
- iv. Floor Area : Approximately 1675 sq. m (18000 sqft) per floor.
- v. No. of Stories : Designed as Six Story; 2nd floor under construction now
- vi. Construction Year : In phases (2008 to till date)
- vii. Foundation Type : Isolated footings (as per drawing)
- viii. Design Drawings : Partly available & Undated
- ix. Soil Investigation Report : Available (Eastern Soil Engineers, April 2006)
- x. Construction Materials : Reinforced Concrete; Coarse Aggregate: 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:

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| Short Term (Immediate) | : Intensity of load should not exceed 60 psf (3.0 kN/m ²) in all floors. |
| 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
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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 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, 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>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</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, 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>	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