

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory : Sister Apparels Ltd.
Address of the Factory : 198/199, Majar Road, 2nd Colony, Mirpur, Dhaka
Present Status of the Factory : Under Operation
Structural Assessment Conducted by : BUET
Date of Structural Inspection : 20th December 2013

BASIC INFORMATION:

The factory building is a mixed occupancy nine storied RC frame building. The building is on individual shallow foundation. The following information was noted:

- i. Building Usage Type : Mixed use; five garment factories in upper floors.
- ii. Structural System : RC frame Building
- iii. Floor System : RC beam supported
- iv. Floor Area : Approximately 6000 sft per floor
- v. No. of Stories : nine story (against designed eight story)
- vi. Construction Year : Up to 1st story in 1993 and upper floors later.
- vii. Foundation Type : Individual shallow foundation (as per drawing)
- viii. Design Drawings : Available, but incomplete.
- ix. Soil Boring Report : Available (done in November 1992)
- x. Construction Materials : Reinforced Concrete (brick chips).
- xi. Generator : In GF outside 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:

- Short Term (Immediate) : No storage shall be made in any floor of the building
Mid Term (6-weeks) : A Detail Engineering Assessment (DEA) needs to be conducted within six weeks
Long Term (6-months) : Necessary remediation after completion of DEA

Name of the Factory : Sister Apparels Ltd.
Fire & Electrical assessment conducted by : BUET
Date of Fire & Electrical Inspection : 06 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 substation.</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 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, 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. 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, 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 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>

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

(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>
<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>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</p> <p><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 Lightning Protection System 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>N/A</p>