

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: Bonny Apparels (Pvt.) Ltd.
Address of the Factory	: 13 D.I.T Road, Khilgaon, Malibagh, Dhaka
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 28 th January 2013

BASIC INFORMATION:

The 6-storied mixed use building is a RCC beam-column structure in all floors. The following information was noted:

- i. Building Usage Type : Mostly garment factories and few shops at ground floor
- ii. Structural System : RCC beam-column system
- iii. Floor System : Edge supported RCC slabs (with 150mm thickness)
- iv. Floor Area : Approximately 382sq. m per floor with typical grid of 4.88 m by 4.88m
- v. No. of Stories : Six story covering about 50% planar area (E-part, the frontal portion facing the major road) and 4 story (W-part) of the approved building
- vi. Construction Year : In phases; probably started in 1991-92
- vii. Foundation Type : No information available
- viii. Design Drawings : No structural drawing available; only the approval drawing is available
- ix. Soil Investigation Report : Available; conducted by Bijoy Soil Investigator in 1991
- x. Construction Materials : Reinforced Concrete; brick aggregate in column of West part and stone aggregate in column of East-part of building as confirmed by BUET Consultants by chipping small portion of the columns.
- xi. Generator : located in 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 factory owner has been instructed to prepare and submit a load plan for vetting.

Mid Term (6-weeks) : The as-built drawings with scanning of the columns of the two lower tiers shall be prepared.

Long Term (6-months) : None.

The recommendations for **Fire & Electrical Safety** corrective action are:

Name of the Factory : Bonny Apparels (Pvt.) Ltd.

Fire & Electrical assessment conducted by : BUET

Date of Fire & Electrical Inspection : 27th 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
Short Term <i>(Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity</i>	Remove all temporary obstructions from all escape routes, aisles and passageways. 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 and exit sign in Bangla and English as per guidelines

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<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. 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 <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 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>	N/A
<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>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 Lightning 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>	. N/A