

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: Alliance Apparels Ltd.
Address of the Factory	: “Shamsher Market” 191/1, South Bishil, Darus Salam Road, Section-1, Mirpur, Dhaka
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 25 th September 2014

BASIC INFORMATION:

The building that housed the present garments factory was approved by RAJUK in 1994 as 8-storied commercial cum residential building with the ground floor as the bottom most floors. The following important points were noted for the building.

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| (i) | Building usage type: | Commercial cum residential and garments factory |
| (ii) | Structural system: | Column beam frame structure. |
| (iii) | Floor system: | RC slab supported on beam columns. Typical floor heights are 8'-08" (Clear). |
| (iv) | Floor area: | Building plan dimensions are 69'-10" × 82'-10". Approximate floor area is 5780 sft per floor with a total floor area of 46240 sft. |
| (v) | No. of stories: | 8 (Eight) |
| (vi) | Construction Year: | 1993-1994 (Ground to 3 rd Floors) & 2004 (4 th -6 th Floor) |
| (vii) | Foundation Type: | Reported as isolated spread footing; Dimensions & Depth are not known. |
| (viii) | Design Drawings: | RAJUK approved drawing, Architectural & structural drawing & load planning were available. |
| (ix) | Soil Investigation Report: | Not available |
| (x) | Construction Materials: | Reinforced Concrete. No test reports of construction materials were available. <ul style="list-style-type: none">• Coarse Aggregate: Brick chips• Reinforcement: 40-grade plain steel rods |
| (xi) | Generator: | Located 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:

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| Short Term (Immediate) | : Intensity of load does not exceed 40 psf (2.0 kN/m ²) at all the places of the building. Proper measures should be taken to eradicate dampness of the building walls. |
| Mid Term (6-weeks) | : The factory owner has been instructed to prepare and submit a load plan of the factory building. |
| Long Term (6-months) | : A Detail Engineering Assessment (DEA) has to be completed. Necessary remediation's after completion of DEA. |

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

Name of the Factory	: Alliance Apparels Ltd.
Fire & Electrical assessment conducted by	: BUET
Date of Fire & Electrical Inspection	: 20 th December 2014

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(A): Recommendations for Fire Safety corrective actions:

Fire Safety Issues	
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>	<p>Remove all temporary obstructions from all escape routes, aisles and passageways.</p> <p>Ensure minimum width of corridors, passageways and aisles.</p> <p>Ensure 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>
Mid Term <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i>	<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</p>
	<p>specifications, grills, storage and assembly areas, offices, work areas.</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. Install command station as per guidelines.</p>
Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i>	<p>Install horizontal and vertical fire-rated separation for stairways of appropriate specifications, grills, storage and assembly areas, offices, work areas.</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. 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:

Electrical Safety Issues	
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 <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. Provide rubber mat in front of the panel. Ensure well-dressed cabling with lugs.</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 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>	<p style="text-align: center;">N/A</p>