

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: Arban Knitwears Ltd.
Address of the Factory	: Bahir Tengra, Taltala, Sharulia, Demra, Dhaka
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 11 th September 2014

BASIC INFORMATION:

The factory building is a single storied steel truss structure supported on RC columns. The following information was noted:

i.	Building Usage Type	: Garments Factory
ii.	Structural System	: Steel truss supported on Steel Columns and Pedestal
iii.	Floor System	: Slab on ground
iv.	Floor Area	: Total 16000 ft ²
v.	No. of Stories	: Single
vi.	Construction Year	: 2011
vii.	Foundation Type	: Individual footing; Size: 5ft X 5ft ; 4ft X 4 ft and at 8ft depth (As per verbal information)
viii.	Design Drawings	: Not available
ix.	Soil Investigation Report	: Available (EPA Soil Engineers, 560, Kazipara, Mirpur, Dhaka)
x.	Construction Materials	: Steel truss and Reinforced Concrete , Brick chips, Steel Column (I-section)
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:

Short Term (Immediate)	: The factory owner has been instructed to prepare as-built drawing and submit the load plan for all floors.
Mid Term (6-weeks)	: None
Long Term (6-months)	: None

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

Name of the Factory	: Arban Knitwears Ltd.
Fire & Electrical assessment conducted by	: BUET
Date of Fire & Electrical Inspection	: 20 th September 2014

(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

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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>Remove all temporary obstructions from all escape routes, aisles and passageways.</p> <p>Maintain minimum effective width of corridors, passageways and aisles.</p> <p>Remove all combustible materials from generator room. Ensure minimum width of corridors, passageways and aisles.</p> <p>Ensure adequate numbers of fire drills with appropriate record keeping.</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 <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i></p>	<p>Prepare drawings to ensure adequate horizontal fire-rated separation inside one floor e.g. separation with stairways, storage, assembly areas, offices, and work areas as per the Guidelines.</p> <p>Prepare plans to ensure all exit access doors are side-swinging type and open to the direction of traffic flow.</p> <p>Remove all collapsible gates/roller shutters/sliding doors.</p> <p>Produce design drawings to demonstrate how exits 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 <i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>	<p>Ensure adequate horizontal fire-rated separation inside one floor e.g. storage, assembly areas, offices, and work areas.</p> <p>Ensure all exit access doors are side-swinging type and open to the direction of traffic flow.</p> <p>Install fire rated enclosure and doors of appropriate dimensions at exits 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 style="text-align: center;">Electrical Safety Issues</p>	
<p>Immediate <i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i></p>	<p style="text-align: center;">N/A</p>

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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.</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. Provide distribution board as per guideline and put identification mark on distribution panel.</p> <p>Remove burnt/broken/loose MCB/MCCB box/socket.</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>	<p style="text-align: center;">N/A</p>