

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory : Water Denim Ltd. (Building-02)
 Address of the Factory : Dakshin Panishail, Kashimpur, Gazipur
 Present Status of the Factory : Under Operation
 Structural Assessment Conducted by : BUET
 Date of Structural Inspection : 26th June 2014

BASIC INFORMATION:

The factory building consists of 2 buildings located at Dakshin Panishail, Kashimpur, Gazipur. The following information was noted:

- i. Building Usage Type : Garment factory building
- ii. Structural System : RC Frame Building
- iii. Floor System : Edge supported RCC slabs
- iv. Floor Area : Approximately 6000 sft per floor
- v. No. of Stories : One Story (construction in progress)
- vi. Construction Year : Started in 2013 and yet to be completed
- vii. Design Drawings : Available
- viii. Foundation Type : Isolated footing
- ix. Soil Investigation Report : Available (Pacific Boring, Rup Nagar, Mirpur)
- x. Construction Materials : Reinforced Concrete, Coarse Aggregate for column: **Stone Chips** and for slab-Brick chips.
- xi. Generator : Ground Floor of **Building 1**

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. Intensity of load does not exceed 60 psf (3.0 kN/m²) in any floor.

Mid Term (6-weeks) : None

Long Term (6-months) : None

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

Name of the Factory : Familiar Ltd. and Water Denim Ltd.

Fire & Electrical assessment conducted by : BUET

Date of Fire & Electrical Inspection : 15th 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
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 adequate numbers of fire drills. 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>Produce proper drawing and plans to create horizontal and vertical fire-rated separation for stairways of appropriate specifications, grills, storage and assembly areas, offices, work areas. Also design to ensure proper separation of high risk areas (e.g., generator, boiler and substation rooms) as per guidelines.</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>
<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 of appropriate specifications, grills, storage and assembly areas, offices and work areas.</p> <p>Ensure proper fire separation of high risk areas (e.g., generator, boiler 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. 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	
<p>Immediate <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 <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>

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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 Lightning 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