

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory : Uniform Textile Ltd. (Extension Building)
Address of the Factory : Ratandi, Mugrapara, Sonargaon, Narayanganj
Present Status of the Factory : Under Operation
Structural Assessment Conducted by : BUET
Date of Structural Inspection : 16th November 2014

BASIC INFORMATION:

The factory building is a 4 storied RC structure and has reinforced concrete beam-column framing system structure. The following information was noted:

- i. Building Usage Type : Garment factory
- ii. Structural System : Beam-Column frame system
- iii. Floor System : Edge supported RC slabs
- iv. Floor Area : Approximately 30,000 sq.ft per floor
- v. No. of Stories : Five stories (Approval is for Eight stories)
- vi. Construction Year : 2012 as per verbal information.
- vii. Foundation Type : Pile foundation (as per drawing)
- viii. Design Drawings : Available (Prepared by ALPHA SOIL & FOUNDATION ENGINEERS, 187, North Shahjahanpur, Dhaka-1217)
- ix. Soil Boring Report : Available, dated January, 2011.
- x. Construction Materials : Reinforced Concrete (with stone chips)
- xi. Generator : Outside

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. The plastic water tanks on roof are of significant sizes. Design review of the supporting structural elements under the plastic tanks is necessary. Proper water proofing of the roof should be done if it is used as roof.

Mid Term (6-weeks) : None

Long Term (6-months) : None

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

Name of the Factory : Uniform Textile Ltd. (Extension Building)

Fire & Electrical assessment conducted by : BUET

Date of Fire & Electrical Inspection : 3rd December 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 obstructions from all escape routes, aisles and passageways. Maintain minimum effective width of passageways and aisles. Ensure that portable extinguishers are easily accessible, monitored and maintained at regular interval as per the Guidelines. Provide proper directional signs and exit signs in Bangla and English as per the 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 and vertical fire-rated separation inside one floor and between different floors, e.g. separation with stairways, storage, offices, and work areas as per the Guidelines. Prepare plans to ensure all exit access doors are side- swinging type and open to the direction of traffic flow Show methods to demonstrate how exit doors are to satisfy the occupancy load according to the Guideline Remove all collapsible gates/roller shutters/sliding doors. Produce 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 doors Produce design to install standard standpipe, hose and fire pump system. 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>Ensure adequate horizontal and vertical fire-rated separation inside one floor and between different floors, e.g. separation with stairways, storage, assembly areas, offices, and work areas. Ensure all exit access doors are side-swinging type and open to the direction of traffic flow. Install standard standpipe, hose and fire pump system. Install proper detection and alarm system. 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. Provide cover on the cable trench and rubber mat in front of the panel. Ensure earthing of panel door with fitted condition. Provide distribution board as per guideline and put identification mark on distribution panel.</p>

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Mid Term <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i>	Provide new Emergency Lighting system. Provide appropriate Lightening 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