

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: Bloomingtex Ltd.
Address of the Factory	: 16/1, Buriganga Shetu Market, New Jurain, Dhaka.
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 18 th November 2014

BASIC INFORMATION:

On the basis of visual observations, study of design drawings of this building and discussion with the personnel present, the following information was noted:

i.	Building Usage Type	: As Garments Factory building
ii.	Structural System	: RC Frame structure with shear walls
iii.	Floor System	: Edge supported RCC slabs up to 4 th floor, thickness= 5"; 5 th floor roof slab and above, flat pate, thickness= 6.75"
iv.	Floor Area	: Approximately 3020 sq. meter (32500 sft) per floor
v.	No. of Stories	: Six stories (plus one basement), designed as a 12-storied factory building
vi.	Construction Year	: First phase: 1998, up to 3 rd floor; Second phase: 2005-06, 4 th floor, the rest of the building in 2007
vii.	Foundation Type	: Raft foundation (thickness= 27")
viii.	Design Drawings	: Drawing available (RAJUK Approval no. 448/94/597, dt. 7/3/1994; Designer: Engr. Zainul Abedin, FIEB-4747)
ix.	Soil Investigation Report	: Available, done in 2013 by R.R. Boring & Engineering, House # 3/3, Road # 2, Kalyanpur, Dhaka-1207
x.	Construction Materials	: Reinforced Concrete with Stone Chips (verified) and reinforcing steel fy=40 ksi assumed.
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)	: None
Mid Term (6-weeks)	: The factory owner has been instructed to prepare and submit a load plan for vetting.
Long Term (6-months)	: A thorough structural adequacy check will also be needed in future for vertical extension of the building.

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

Name of the Factory	: Bloomingtex Ltd.
Fire & Electrical assessment conducted by	: BUET
Date of Fire & Electrical Inspection	: 10 th November 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>Remove all combustible materials from transformer/substation/ boiler/ generator room.</p> <p>Ensure minimum width of corridors, passageways and aisles.</p> <p>Ensure adequate numbers of fire drills.</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>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, transformer and substation rooms) as per guidelines.</p> <p>Remove all collapsible gates/roller shutters/sliding doors. 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, 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 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.</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>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 Lightening 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>N/A</p>