

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: Bengal Leisure Wear Ltd.
Address of the Factory	: 473, North Ibrahimpur, Kafrul, Cantonment, Dhaka
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 21 st December 2014

BASIC INFORMATION:

The factory building is a nine storied RC column frame structure. The following information can be presented:

i.	Building Usage Type	: Garment factory building.
ii.	Structural System	: RC Frame Building
iii.	Floor System	: Flat Plate
iv.	Floor Area	: Approximately 11000 sft per floor
v.	No. of Stories	: Nine Stories
vi.	Construction Year	: 2002-2006
vii.	Foundation Type	: Isolated footing (as per drawing)
viii.	Design Drawings	: Available (Undated)
ix.	Soil Investigation Report	: Available (Foundation and Structural Engineers, Kallayanpur, Dhaka, 2001)
x.	Construction Materials	: Reinforced Concrete; Coarse Aggregate: Brick chips
xi.	Generator	: 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:

Short Term (Immediate)	: The factory owner has to prepare and submit the load plan for all floors. Intensity of loading should not exceed 42 psf (2.0 kN/m ²) in all floors.
Mid Term (6-weeks)	: None
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	: Bengal Leisure Wear Ltd.
Fire & Electrical assessment conducted by	: BUET
Date of Fire & Electrical Inspection	: 24 th September 2014

(A): Recommendations for Fire Safety corrective actions:

Fire Safety Issues	
<i>Immediate (the factory should not continue to be occupied until these non-conformities have been rectified):</i>	N/A

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<p><i>Short Term</i> (Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity)</p>	<p>Remove obstructions from all escape routes, aisles and passageways.</p> <p>Remove all combustible materials from transformer, substation, boiler and generator room, if exists.</p> <p>Maintain minimum effective width of corridors, passageways and aisles.</p> <p>Confirm adequate numbers of fire drills.</p> <p>Make sure that portable extinguishers are easily accessible, monitored and maintained at regular interval as per the Guidelines.</p> <p>Provide proper directional signs and exit signs in Bangla and English as per the Guidelines.</p>
<p><i>Mid Term</i> (The remedial works indicated must be carried out within a period of 6 weeks)</p>	<p>Remove temporary structures from roof top.</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, lift lobby, offices, and work areas. Also show methods to ensure proper separation of high risk areas (e.g., generator, boiler, transformer and substation rooms) as per the Guidelines.</p> <p>Ensure all exit access doors are side-swinging type and open to the direction of traffic flow. Show methods to demonstrate how stairways are to satisfy the occupancy load according to the Guideline</p> <p>Provide design to install standard standpipe, hose and fire pump system.</p> <p>Provide design to install proper detection and alarm system. Establish command station as per the Guidelines.</p>
<p><i>Long Term</i> (The remedial works indicated must be carried out within a period of 6 months)</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, lift lobby, 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>Ensure proper separation of high risk areas (e.g., generator, boiler, transformer and substation rooms) as per the Guidelines.</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><i>Immediate</i> (the factory should not continue to be occupied until these non-conformities have been rectified):</p>	<p>N/A</p>

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<p><i>Short Term</i> (Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity)</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.</p> <p>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><i>Mid Term</i> (The remedial works indicated must be carried out within a period of 6 weeks)</p>	<p>Provide separate service ducts for electrical cables.</p> <p>Provide new Emergency Lighting system.</p> <p>Provide appropriate Lightening Protection System as per guidelines.</p>
<p><i>Long Term</i> (The remedial works indicated must be carried out within a period of 6 months)</p>	<p>N/A</p>