

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: SHRABONY KNITWEAR LTD. (Four Storied Building)
Address of the Factory	: 3083 & 3085, Khatian No. 64 & 110, Mouja: Dhononjoypur No. 76, Sit No. 3, Vill: Kathgora, P.O: Zirabo, Thana: Ashulia, Dhaka
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 3 rd November 2014

BASIC INFORMATION:

The present garment factory is a factory building with beam-column floor system. The following information were noted:

- i. Building Usage Type : Primarily as Garments Factory
- ii. Structural System : Beam-column structure
- iii. Floor System : Two-way solid floor system
- iv. Floor Area : Approx. 9667.815 sft/floor (as per architectural drawing)
- v. No. of Stories : Presently four, 4th floor is under-construction (designed as 5 storied)
- vi. Construction Year : Phase I: 2007 to 2008; and Phase II: presently under construction
- vii. Foundation Type : Individual footing of different sizes (11'-6" × 11'-6" with thickness 24" for interior columns C3 and 9'-0" × 9'-0" with thickness 20" for edge columns C2 and 8'-0" × 8'-0" with thickness 18" for corner column C1, depth of foundation is absent in the structural drawing)
- viii. Design Drawings : Approval drawing available (approval from Ashulia Union, Savar). Detail design drawings are also available.
- ix. Soil Investigation Report : Available and submitted by Design & Planning Consultant, November 2006
- x. Construction Materials : Reinforced Concrete with brick aggregate (as checked) and steel - deformed rebar 40 Grade for column and beam and 60 Grade for foundation (as per drawing)
- xi. Generator : One Generator having capacity 250kVA is located 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 and submit a load plan for vetting. The shrinkage cracks of the beams should be repaired soon.

Mid Term (6-weeks) : None

Long Term (6-months) : None

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

Name of the Factory : Shrabony Knitwear Ltd.

Fire & Electrical assessment conducted by : BUET

Date of Fire & Electrical Inspection : 17th 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 obstructions from all escape routes, aisles and passageways. Maintain minimum effective width of corridors, passageways and aisles. Confirm adequate numbers of fire drills. Make sure 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, assembly areas, offices, and work areas as per the Guidelines. Prepare plan to ensure all exit access doors are side- swinging type and open to the direction of traffic flow. 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 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. Ensure proper separation of high risk areas (e.g., generator rooms) as per the Guidelines. 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:

<p 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 align="center">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. Ensure well-dressed cabling with lugs and remove loose cabling. 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 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 align="center">N/A</p>