

## Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: Collar Knitting
Address of the Factory	: Jamgora, Depz Road, Ashulia, Savar, Dhaka
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 4 <sup>th</sup> November 2014

### **BASIC INFORMATION:**

The present garment factory is housed on the ground floor of the steel shed. The following information was noted:

- i. Building Usage Type : Knitting factory
- ii. Structural System : Steel shed using MS truss roof.
- iii. Floor System : Roofing by using CGI sheet on MS truss framing.
- iv. Floor Area : Approx. 13,000 sft.
- v. No. of Stories : 1 (one) story
- vi. Construction Year : From 2004
- vii. Foundation Type : As per submitted drawings, the foundation of the building was made by using strip footing at 2.5 ft depth below the plinth level. The properties of soil at this depth are not shown. Therefore the bearing capacity of foundation can't be checked.
- viii. Design Drawings : Design by Engr. Md. Ismail Hossain (FIEB-7132).
- ix. Soil Investigation Report : Prepared by EMO Consulting Engineers in Year 2014.
- x. Construction Materials : Brick made side wall and steel truss roofing on steel support at inside of the shed.
- xi. Generator : Located outside of the main factory shed.

### **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) : It is suggested to provide two supports in the location missing columns. The factory owner is asked to conduct a detailed engineering assessment of the factory shed by a competent engineering team.
- Mid Term (6-weeks) : The factory owner has been instructed to prepare and submit a load plan for all floors.
- Long Term (6-months) : It is suggested to provide bracing in the direction perpendicular to the roof trusses of the shed. Assure regular maintenance of all the structural and non-structural members of the building shed so that these elements become durable enough. No further construction work can be commenced on this site before the test and approval from competent authority.

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

Name of the Factory	: Collar Knitting
Fire & Electrical assessment conducted by	: BUET
Date of Fire & Electrical Inspection	: 11 <sup>th</sup> 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 (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>Maintain minimum effective width of corridors, passageways and aisles.</p> <p>Remove all combustible materials from generator room.</p> <p>Confirm adequate numbers of fire drills.</p> <p>Ensure 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>Mid Term (The remedial works indicated must be carried out within a period of 6 weeks)</p>	<p>Prepare drawings to ensure adequate horizontal fire-rated separation inside floor e.g. separation with storage and work areas as per the Guidelines.</p> <p>Prepare plans to ensure all exit access doors are side-swinging type and open to the direction of traffic flow. Show methods to ensure proper separation of high risk areas (e.g., generator rooms) as per the Guidelines.</p> <p>Provide design to install proper detection and alarm system</p> <p>Provide design to install standard standpipe, hose and fire pump system.</p> <p>Provide design to install proper detection and alarm system.</p>
<p>Long Term (The remedial works indicated must be carried out within a period of 6 months)</p>	<p>Ensure adequate horizontal fire-rated separation inside floor e.g. separation with storage, 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 rooms) as per the Guidelines.</p> <p>Install standard standpipe, hose and fire pump system.</p> <p>Install proper detection and alarm system.</p>

### (B): Recommendations for Electrical Safety corrective actions:

Electrical Safety Issues	
<p>Immediate (the factory should not continue to be occupied until these non-conformities have been rectified):</p>	N/A
<p>Short Term (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>Ensure well-dressed cabling with lugs and remove loose cabling.</p> <p>Ensure earthing of panel body &amp; door with fitted condition.</p> <p>Provide distribution board as per guideline and put identification mark on distribution panel.</p>
<p>Mid Term (The remedial works indicated must be carried out within a period of 6 weeks)</p>	
<p>Long Term (The remedial works indicated must be carried out within a period of 6 months)</p>	N/A