

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

Name of the Factory : Vertex Sweater Ltd.  
 Address of the Factory : 58 Dobadiah, Uttar Khan, Dhaka-1230  
 Present Status of the Factory : Under Operation  
 Structural Assessment Conducted by : BUET  
 Date of Structural Inspection : 5<sup>th</sup> November 2014

### BASIC INFORMATION:

The factory building is currently a three storied building, with RC beam column framing system, designed and approved for four story. The following information was noted:

- i. Building Usage Type : Garment factory.
- ii. Structural System : RC beam column frame structure.
- iii. Floor System : Edge supported RC solid floor slab system on RC beam.
- iv. Floor Area : Approximately 1770 sft per floor.
- v. No. of Stories : At present 03.
- vi. Construction Year : Before 2001.
- vii. Foundation Type : Individual footings (as per as design drawing).
- viii. Design Drawings : Available, By Engineer Tanverul Haque.
- ix. Soil Boring Report : Available, Geotechnical Engineers & Consultants. 17/A DIT Road, East Rampura, Dhaka-1219 (Feb 1996).
- x. Construction Materials : Reinforced concrete with brick chips and deformed rebars 40 Grade (from year of construction).
- xi. Generator : Outside this 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) : None  
 Long Term (6-months) : None

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

Name of the Factory : Vertex Sweaters Ltd.  
 Fire & Electrical assessment conducted by : BUET  
 Date of Fire & Electrical Inspection : 21<sup>st</sup> October 2014

#### **(A): Recommendations for Fire Safety corrective actions:**

<b>Fire Safety Issues</b>	
Immediate <i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i>	N/A
Short Term <i>(Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity</i>	Remove obstructions from all escape routes, aisles and passageways. Maintain minimum effective width of corridors, passageways and aisles. Remove all combustible materials from generator room. Confirm adequate numbers of fire drills. Provide proper directional signs and exit signs in Bangla and English as per the Guidelines.

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<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 and work areas as per the Guidelines.</p> <p>Ensure all exit access doors are side-swinging type and open to the direction of traffic flow.</p> <p>Show methods to demonstrate how exit doors are to satisfy the occupancy load according to the Guideline</p> <p>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.</p> <p>Also show methods to ensure proper separation of high risk areas (e.g., generator room) as per the Guidelines.</p> <p>Provide design to install proper detection and alarm system. Establish command station as per the Guidelines.</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 and work areas.</p> <p>Relocate and distribute the exits as remote as possible with regular interval.</p> <p>Ensure proper separation of high risk areas (e.g., generator, room) as per the Guidelines.</p> <p>Install proper detection and alarm system.</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>	N/A
<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 &amp; door with fitted condition.</p> <p>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 separate service ducts for electrical cables.</p> <p>Provide new Emergency Lighting system.</p>
<p>Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>	N/A