

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: Suhcheon Company (Bd) Ltd.
Address of the Factory	: South Panishail, Zirani Bazar, Joydebpur, Gazipur.
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 8 th November 2014

BASIC INFORMATION:

The present garment factory is a commercial building with beam-column frame system for the building and for the tin sheds it is column-truss structural system. The following information were noted:

- i. Building Usage Type : Primarily as Garments Factory
- ii. Structural System : RC beam column frame structure for the building and for the tin sheds it is column truss structural system
- iii. Floor System : Edge supported RC solid floor slab system on RC beam for the building.
- iv. Floor Area : Approx. 1600 m²/floor for the building and 840 m² for each tin shed.
- v. No. of Stories : Three (for the building)
- vi. Construction Year : 2003
- vii. Foundation Type : Individual footing.
- viii. Design Drawings : (Engr. Khaled Hossain Mahboob, M11273)
- ix. Soil Investigation Report : Available.
- x. Construction Materials : Reinforced Concrete with brick chips (as reported) and steel plain rebars 40 Grade (as per drawing) for the building.
- xi. Generator : One Generator and sub-station 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) : 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 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	: Suhcheon Company (BD) Ltd.
Fire & Electrical assessment conducted by	: BUET
Date of Fire & Electrical Inspection	: 16 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
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>Remove all temporary obstructions from all escape routes, aisles and passageways.</p> <p>Remove all combustible materials from substation/ boiler room.</p> <p>Ensure minimum width of corridors, passageways and aisles.</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>

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<p>Mid Term (The remedial works indicated must be carried out within a period of 6 weeks)</p>	<p>Produce proper drawing and plans to create horizontal and vertical fire-rated separation for stairways of appropriate specifications, grills, assembly areas, offices, work areas. Also design to ensure proper separation of high risk areas (e.g., boiler 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>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>Install horizontal and vertical fire-rated separation for stairways of appropriate specifications, grills, assembly areas, offices, work areas.</p> <p>Ensure proper fire separation of high risk areas (e.g., boiler, 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 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>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 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>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>Mid Term (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>Long Term (The remedial works indicated must be carried out within a period of 6 months)</p>	N/A