

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: Fashion Export International Ltd.
Address of the Factory	: 435/A, Sadarghat Road, Chittagong.
Present Status of the Factory	: Shutdown(Factory in under red)
Structural Assessment Conducted by	: TÜV SÜD Bangladesh (Pvt.) Ltd.
Date of Structural Inspection	: 2015-02-23
Fire Assessment Conducted by	: None
Date of Fire Inspection	: None
Electrical Assessment Conducted by	: None
Date of Electrical Inspection	: None
BGMEA Membership No.	: 2805

Due to Red only structure Assessment done.

BASIC INFORMATION: The following general information was noted:

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| i. Building Usage Type | : Garment Factory |
| ii. Structural System | : R.C.C Building |
| iii. Floor System | : RCC Beam Slab |
| iv. Floor Area | : The typical plinth area is 3239.35 sq. ft. and total Production floor is 17196 sq. ft. |
| v. No. of Stories | : 6 Storey + Semi story on rooftop |
| vi. Construction Year | : 1996 - 1998 |
| vii. Foundation Type | : Shallow foundation on Timber compaction piles. |
| viii. Design Drawings | : Available but not complete |
| ix. Soil Investigation Report | : Available. |
| x. construction Materials | : Brick aggregate |
| xi. Generator | : North-East corner of Building. |

RECOMMENDATIONS FOR CORRECTIVE ACTION: Column was found in highly stressed condition due to over load, big tributary area and inadequate column capacity, which may pose high risk to operations in the factory. Due to this, the factory is rated as RED. Detailed Engineering Assessment (DEA) is recommended.

During the assessment, various non-conformities were found for which immediate, mid-term and long term corrective action is recommended.

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| Short Term (Immediate) | : 1. The Overhead water reservoir needs to be emptied and cannot be used before further investigation.
2. The Rooftop storage needs to be emptied and cannot be used before further investigation.
3. The Rooftop canteen shed needs to be emptied and cannot be used before further investigation.
4. The Bonded warehouse needs to be emptied and the space cannot be used before further investigation.
5. The Live load to be limited to not more than 20 psf within the tributary areas of the overstressed columns.
6. Factory Engineer to review design, loads and columns stresses in area identified above.
7. Verify insitu concrete stresses either by 100mm dia. cores or existing cylinder |
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strength data for the identified columns or 100mm dia. cores from 4 columns.

8. Sections of plaster finish to identified columns containing cracks to be removed to investigate if cracks penetrate into the building structure.
9. A Detail Engineering Assessment of Factory to be commenced, see attached scope.

Mid Term (6-week)

- : 1. Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity.
2. Detail Engineering Assessment to be completed.
 3. Take necessary communicative steps with approval authority regarding approval of semi floor on rooftop.
 4. Sections of plaster finish to identified beams, slabs and walls to be removed to investigate if cracks penetrate into the building structure. Investigation needed to determine why cracks occurring.
 5. Sections of plaster finish to slab to be removed to investigate if dampness penetrates into the building wall. Investigation needed why it is occurring.
 6. The connection of steel structure needs to be checked by building engineer. The bracing system and tie between purlin are required to ensure the stability of the steel shed. The thickness of the corroded supports also need to check by building engineer.
 7. Water proofing and proper roof drainage system need to be implemented as directed by the guidance of building engineer.

Long Term (6-months)

- : 1. Continue to implement loading plan.
2. Carry out any remedial actions as directed by the Building Engineer regarding cracks on columns.
 3. Carry out requirements as directed by the approval authority for unapproved Semi-Floor construction.
 4. Carry out any remedial actions as directed by the Building Engineer regarding cracks on beam, slab and wall-slab joint.
 5. Carry out any remedial actions as directed by the Building Engineer regarding dampness in slabs.
 6. Carry out any remedial actions as directed by the Building Engineer for no engineered connections and corrosion.
 7. Carry out the execution of water proofing and drainage system as directed by the Building Engineer.

The recommendations for **Fire & Electrical Safety** corrective action are: **None**.

