

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: STYLECRAFT LIMITED
Address of the Factory	: 1/1, East Chandra, Joydebpur, Gazipur, Bangladesh
Dhaka Present Status of the Factory	: Under Operation
Structural assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Structural Inspection	: 18 May, 2014
Fire & Electrical assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Fire & Electrical Inspection	: 4 June, 2014

Basic Information: The present garment factory is a commercial building with beam-column frame system. The following general information was noted:

i.	Building Usage Type	: Garment factory
ii.	Structural System	: R.C Beam and column frame with a 2-way solid slab
iii.	Floor System	: Beam slab
iv.	Floor Area	: The total area of the building is 4,200 sq. ft. per floor
v.	No. of Stories	: 5 storied
vi.	Construction Year	: 2004
vii.	Foundation Type	: Unavailable
viii.	Design Drawings	: Available
ix.	Soil investigation Report	: Unavailable
x.	Construction Materials	: Brick aggregated
xi.	Generator	: Ground floor west of the southwest exit discharge

Recommendations for Corrective Action: The recommendations of corrective action for both Structural and Fire & Electrical Safety are as follows:

The recommendations for Structural Safety corrective actions are:

Immediate (Now):

1. Reduce all floor loading down to 4.8kPa.
2. Restrict loading on the cantilevered portion to 2,0 kPa until the Design Engineer carries out his assessment.

Mid Term (Within 6 Weeks):

1. The Factory Engineer is to carry out an assessment of the structural steel located at the main roof to evaluate its capacity to resist uplift and lateral forces due to high winds.
2. Install horizontal bracing at the unrestrained node of the top chords of the trusses.
3. Create and actively manage loading plans for all floors.
4. Have the Design Engineer survey the actual site conditions and confirm that the structural elements have the adequate capacity for such a cantilever.
5. The As-Built drawings must be updated and completed, incorporating the missing column information.
6. The Factory Engineer is to carry out an assessment of the lightweight steel located at the roof of the elevator shaft.
7. The brick column must be replaced by an adequate steel column.

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Long Term (Within 6 Months):

1. Maintain loading plans for all floors.
2. If deemed necessary by Factory Engineer, carry out any additional remedial works recommended.

The recommendations for Fire Safety corrective actions are:

Immediate (Within 1 month):

1. Remove locking features from all egress doors / gates. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.
2. Reduce occupant load to not more than available exit capacity. The available exit capacity is 700 occupants per floor. Reduce the occupant load from 1270 on the first (1) floor and 1138 on the second (2) floor to not more than 700 occupants on each floor.
3. Remove office from exit stairs and egress paths.
4. Replace all gates / sliding doors along the means of egress with side-hinged, swinging egress doors. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.

Short Term (Within 3 Months):

1. Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.
2. Provide minimum 1.5-hr fire rated doors and seal all unprotected openings to separate the exit stairs from work areas and other building spaces on all floor levels. Ensure that the fire doors are self-closing and positive latching and that they are provided with fire exit (panic) hardware where serving production floors.
3. Separate the boiler, generator and transformer rooms by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations.
4. Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separation.
5. Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.
6. Inspect, test and maintain the emergency lighting system in accordance with the ACCORD standard. Keep written records on-site.

Mid Term (within 6 Months):

1. Remove single-station smoke alarms. Provide automatic smoke detection throughout the building, tied into the fire alarm system, in accordance with NFPA 72.

Long Term (More than 6 months):

1. Replace the fire alarm system with a new, listed addressable fire alarm system in accordance with NFPA 72.

The recommendations for Electrical Safety corrective actions are:

Immediate (Within 1 month): NA

Short Term (Within 3 Months):

1. Cable terminating at Generator output terminal box must be supported on riser and protected. Existing cables laid on floor may be installed in cable trench or on trays.
2. Disconnect the electric supply to the duct and clean all the cables and other components of the duct. Provide cover made of non-combustible material preferably metallic sheet on the duct to prevent ingress of dust and lint.

Mid Term (Within 6 months):

1. Construct a separate room for the transformer by constructing barrier (brick) walls (fire rated wall) up to the ceiling; the minimum area of the transformer room should be 10-13 sq m (according to BNBC 2006, Section-2.6.3).

Long Term (More than 6 months): NA