

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: VINTAGE DENIM LTD
Address of the Factory	: Gilarchala, Sreepur, 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	: 15 May, 2014
Fire & Electrical assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Fire & Electrical Inspection	: 24 July, 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 factory has total floor area of 147000sq.ft
v.	No. of Stories	: 4 storied
vi.	Construction Year	: 2007
vii.	Foundation Type	: Unavailable
viii.	Design Drawings	: Available (Permit drawing)
ix.	Soil investigation Report	: Unavailable
x.	Construction Materials	: Unavailable
xi.	Generator	: Separated shed

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. Immediately reduce stacking height of box to ensure total load does not exceed 3.0kPa.

Mid Term (Within 6 Weeks):

1. Mark the maximum allowable height of box stacking to ensure full compliance.
2. Rehabilitate this staircase, using suitable corrosion-resistant materials, and designed by a Structural Engineer using exit loading as per BNBC.
3. Based on discussion with owners, sufficient other emergency exits are available, so this stair may be closed until the repairs are made.
4. Retain a Structural Engineer to perform a Detailed Engineering Assessment regarding the lateral stability of the roof structure and to design the remedial works.

Long Term (Within 6 Months):

1. Carry out the strengthening work to provide the bracing system.
2. Apply new proper waterproof membrane and screed on the roof floor.
3. Based on the results of a detailed structural survey, the building engineer and architect are to prepare complete structural and architectural records for the building, reflecting accurately the as-built condition.

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

The recommendations for Fire Safety corrective actions are:

Immediate (Within 1 month):

1. Remove all storage from exit stairs and egress paths.

Short Term (Within 3 Months):

1. Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Where separate storage rooms may not be feasible, provide defined storage areas and limit the storage arrangement as follows:

-Maximum height of 2.4m and maximum area of 23m²

-If sprinkler protected: maximum height of 3.66m and maximum area of 93m².

Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.

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. If fire doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system.
3. Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.
4. Inspect, test and maintain the emergency lighting system in accordance with The ACCORD standard. Keep written records on-site.

Mid Term (within 6 Months): NA

Long Term (More than 6 months): NA

The recommendations for Electrical Safety corrective actions are:

Immediate (Within 1 month):

1. Generator Battery bank should be install in an acid proof battery stand (steel frame) with adequate space for inspection and maintenance.
2. Motor in boiler must be fixed firmly on the concrete floor (base slab may be built).
3. Keep at least 25mm clearance between the MCCBs for better heat dissipation and perform maintenance work.
4. Cable must be arranged and latched properly on the cable tray. Provide cover made of noncombustible material preferably metallic sheet to protect the cables' insulation from physical damage as well as prevent the ingress of debris, dust and lint.

Short Term (Within 3 Months):

1. Any changes in load, protection system, conductors, Generation and supply system must be reflected in the As-built SLD and drawings.

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

2. Thermo graphic scanning of the entire electrical system must be performed on tri-annual basis and recorded.
3. Insulation resistant test of all the cables must be performed once every 5 year cycle and recorded.
4. Electrical safety training and awareness program for the electrical personal and workers must be initiated and recorded.
5. Enlarge the existing generator room to provide sufficient working clearance around or keep sufficient clearance around the generator (1 meter preferably).

Mid Term (Within 6 months): NA

Long Term (More than 6 months): NA