

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: VINTAGE DENIM STUDIO LTD.
Address of the Factory	: Plot #99 & 102-128, Ishwardi EPZ, Ishwardi, Pabna
Dhaka Present Status of the Factory	: Under Operation
Structural assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Structural Inspection	: 7 May, 2014
Fire & Electrical assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Fire & Electrical Inspection	: 1 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 frames with a 2-way solid slab
iii.	Floor System	: Beam slab
iv.	Floor Area	: RMG Factory Block (142,500 sq. ft.), Office 1 (24,000 sq. ft.), Office 2 (24,000 sq. ft.), Washing Plant (23,460.23 sq. ft.)
v.	No. of Stories	: Single storied
vi.	Construction Year	: 2011
vii.	Foundation Type	: Unavailable
viii.	Design Drawings	: Available (Permit drawing)
ix.	Soil investigation Report	: Unavailable
x.	Construction Materials	: Unavailable
xi.	Generator	: Basement in assembly building

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. Clear all loose material that could potential fall on the workers.

Mid Term (Within 6 Weeks): NA

Long Term (Within 6 Months):

1. Update documents with actual site conditions.
2. Demolish the concrete around the column to allow the steel structure to move freely.
3. Design engineer to confirm that the column has sufficient capacity under lateral loads which might induce moments into the column.

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.

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2. 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.
3. Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.
4. Remove the detector cover.
5. Provide exit signs above all exits to the exterior and all doors to the exit stairs.

Short Term (Within 3 Months):

1. 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.
2. Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.
3. 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.

4. Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.
5. Based on ceiling configuration, provide additional detectors where needed, and space them in accordance with NFPA 72.
6. Separate the hazardous materials / flammable liquid storage room by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations.
7. 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.
8. Modify the egress door to swing in the direction of egress travel.

Mid Term (within 6 Months):

1. Seal all penetrations and openings to the interior of the building along the discharge path, up to a height of 10 ft., to provide a minimum 1-hr fire separation. Alternatively, provide a second remote discharge path to the public way (only include this if feasible).
2. Remove the single-station smoke alarms. Provide automatic smoke detectors throughout the building in accordance with NFPA 72.

Long Term (More than 6 months): NA

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The recommendations for Electrical Safety corrective actions are:

Immediate (Within 1 month):

1. Transformer neutral earth must be checked and reconnected firmly with properly sized washers.
2. Breather oil cup must be filled with transformer oil to the required level as instructed by the manufacturer.
3. Connect the neutral of the transformer to the main earth strip for the service line in both the transformers.

Short Term (Within 3 Months):

1. HT Cables must be supported & arranged into cable riser or ladder with cover to ensure the mechanical protection of the cables from any physical damage or reduce the stress on termination point /bushing.

Mid Term (Within 6 months): NA

Long Term (More than 6 months): NA