

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: VIYELLATEX LIMITED-UNIT 2.
Address of the Factory	: Shirin Chowdhury Complex, Vogra, Joydevpur, Gazipur
Dhaka Present Status of the Factory	: Under Operation
Structural assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Structural Inspection	: 12 March, 2014
Fire & Electrical assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Fire & Electrical Inspection	: 23 March, 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 column with a 2- way solid flat slab
iii.	Floor System	: Beam slab
iv.	Floor Area	: Unavailable
v.	No. of Stories	: 9 storied
vi.	Construction Year	: 2008
vii.	Foundation Type	: Unavailable
viii.	Design Drawings	: Available (Does not match the actual site condition)
ix.	Soil investigation Report	: Unavailable
x.	Construction Materials	: Unavailable
xi.	Generator	: In a separate 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): NA

Mid Term (Within 6 Weeks):

1. Factory Engineer to review stability design.

Long Term (Within 6 Months):

1. Carry out any remedial measures that the factory engineer considers necessary to ensure the long term stability the building.
2. Building engineer to check, collect information and produce accurate and complete as-built documentation.
3. Consider applying a new waterproofing membrane.
4. Manage drainage from above levels and water tanks to downpipes to avoid structural corrosion due to continuous moisture.

The recommendations for Fire Safety corrective actions are:

Immediate (Within 1 month):

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

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 immediately. If higher occupant load is desired, provide additional exits in the future.
3. 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 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.
2. Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separation.
3. Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.
4. Remove all storage from exit stairs and egress paths.
5. Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.

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.
2. Provide automatic sprinkler protection throughout the building in accordance with NFPA 13.

The recommendations for Electrical Safety corrective actions are:

Immediate (Within 1 month):

1. Transformer may be separated from panels by constructing barrier walls.
2. Breather oil cup must be filled with transformer oil to required level as instructed by the manufacturer.
3. Replace silica gel and must include in routine maintenance to check and maintain.
4. Cable length must cover full length of cables installed to support cables till the last end of the panel rows.
5. Required length of cable may be used.

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

6. Excess length of existing HT cables coiled near transformer must be protected and laid safely.
7. 11kV HT cable must be supported in cable trays or laid in trenches. The cable must be protected against physical injury.
8. Install separators between different phases of MCCB. Standard separators provided by the MCCB manufacturer must be used.
9. Cables must be supported on cable trays and riser. Cables may be laid in cable trench with covers.
10. Cables drawn in flexible PVC conduit not covering throughout cable length must be additionally protected and supported till the panel edge.
11. Cables in trench must be supported on trays inside trench and should be protected with covers with ample strength and rigidity.
12. Wiring in PVC flexible conduit entering panels must be firmly fixed at the panel (base / Top) using socket and check nuts.
13. Cables entering base plates without glands leaving opening gaps around cables must be sealed with metal plates. Compression glands may be used to fix existing cables to the base plates.
14. Panel base plates must be installed, at all time, and cable(s) entering panel must be firmly fixed with cable gland.
15. Flexible PVC conduits on walls and column must be additionally protected and supported on trays or risers.
16. Cables laid outside building must be supported in cable trays and protected against weather and possible physical damages.

Short Term (Within 3 Months): NA

Mid Term (Within 6 months): NA

Long Term (More than 6 months): NA