

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: CONTINENTAL GARMENTS IND. (PVT) LTD
Address of the Factory	: Plot No. 8, Ward 2, Block B, Dewan Idris, Bora Rangamatia, Bangladesh
Dhaka Present Status of the Factory	: Under Operation
Structural assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Structural Inspection	: 29 April, 2014
Fire & Electrical assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Fire & Electrical Inspection	: 3 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	: Steel frame structure with a 150mm (observed) composite concrete/metal deck slabs and a lightweight metal deck roof
iii.	Floor System	: Beam slab
iv.	Floor Area	: The total floor area of the main building is 132,000 sq.ft.
v.	No. of Stories	: 4 storied
vi.	Construction Year	: 2004
vii.	Foundation Type	: Isolated pad foundation
viii.	Design Drawings	: Available
ix.	Soil investigation Report	: Available
x.	Construction Materials	: Brick aggregated
xi.	Generator	: Ground floor

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): NA

Long Term (Within 6 Months):

1. Building engineer to survey existing structure and update structural drawings.
2. Engineer to review structural design of 1st system as-built vs currently calculated.
3. Building engineer to survey existing structure and confirm by calculation its adequacy and update structural drawings.
4. Building engineer to recommend repair.
5. Carry out repairs.

The recommendations for Fire Safety corrective actions are:

Immediate (Within 1 month):

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

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2. Reduce occupant load to not more than available exit capacity of 796 occupants. In the future provide additional exit to increase occupant capacity.

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.
2. Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.
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. The transformer must be installed with barrier walls between transformer and other panels. The walls must be fire resistant and should have height up to the ceiling or Assign a qualified engineer to design a required transformer room according to BNBC, Section-2.6.3.
2. Conservator tank (on transformer) must be checked and required oil level must be maintained.
3. Replace silica gel and fill breather cup with required transformer oil and it must be included in routine maintenance to check and maintain.
4. Check for loose earth-connection and take necessary action accordingly.
5. Floors in generator room must be kept free from water and oil spillage.
6. Materials and wastage stored in generator room must be removed.
7. Sharp cable bends shall be avoided such that no stress is imposed on the termination of the cable or insulation of the cable.

Short Term (Within 3 Months):

1. Leakage current collector at the 11kV cable end termination must be connected to earth terminal.
2. Cables must be supported on covered cable-trays and riser or must be laid into trench.
3. Metallic cover (checkered plate) should be provided on cable trench to prevent the damage of cable insulation. Cables must be arranged inside the trench using cable tray.

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4. Power cables installed near boiler steam lines must be protected from external heat and moisture (may keeping sufficient gaps between steam pipes and cable. Install adequate thermal-insulation on the steam pipe.
5. Replace the flexible pipe with PVC pipe to support and protect the cables. Ensure the industrial graded PVC pipe is properly clamped with saddle at a regular interval.

Mid Term (Within 6 months): NA

Long Term (More than 6 months): NA