

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: TRUST TROUSER LTD.
Address of the Factory	: 3 # Sujat Nagar, Suktan Mansion (4th Floor), Mirpur-12, Dhaka-1216
Dhaka Present Status of the Factory	: Under Operation
Structural assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Structural Inspection	: 10 March, 2014
Fire & Electrical assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Fire & Electrical Inspection	: 21 April, 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 floor are of the factory is 52,563 sq.ft.
v. No. of Stories	: 8 storied
vi. Construction Year	: 1995-1998
vii. Foundation Type	: Unavailable
viii. Design Drawings	: Available (approved by RAJUK)
ix. Soil investigation Report	: Available
x. Construction Materials	: Brick aggregated
xi. Generator	: Outbuilding

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 storage loads throughout the building.
2. Factory engineer to review design loads and column stresses.

Mid Term (Within 6 Weeks):

1. Determine a maximum storage height based upon design loadings.
2. Acquire column reinforcement details.
3. If column reinforcement details are not available, conduct a detailed engineering investigation to determine column reinforcing.
4. A detailed engineering assessment is to be performed regarding column capacity.
5. Basement, 1st & 2nd stories are required to be surveyed.

Long Term (Within 6 Months):

1. Establish and maintain a loading plan for all floor plates with consideration given to slab and column capacity.
2. Carry out any actions deemed necessary as a result of this follow-up survey in line with findings and recommendations of this report.

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

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. Remove all storage from exit stairs and egress paths.
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.
4. Remove manual on/off switches from exit signage units to prevent them from being switched off.

Short Term (Within 3 Months):

1. Separate the boiler room by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations.
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. Provide minimum aisle widths of 36-in.
4. Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.
5. 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. Provide additional notification appliances such that the fire alarm system is audible throughout the building 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. Panel door(s) must be connected with earth bond connecting frame and door.
2. Cables terminating at distribution board and installed between floor and panel base must be protected in rigid conduit or in covered ladder to protect physical damages.
3. Cables connecting to bus-bar inside panel must be connected firmly with cable lugs. Cable terminating to the bus-bar must be fixed with proper size nuts, bolt and washers.

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

4. Wiring must be done as per standard code with appropriate materials and support.

Short Term (Within 3 Months):

1. Check for loose connection, rust formation, joints along the earth wire and appropriately rectify.
2. Power socket outlet must be facing vertical or cover protected, and wiring channels must run through safe route to avoid damage of the installation.
3. Cables must be laid through cable trench with proper cover.
4. Flexible PVC conduits cut (slit) open at one side must be removed. Cables must be supported on cable ducts, trays or ladders and must be securely clamped at regular intervals.

Mid Term (Within 6 months): NA

Long Term (More than 6 months):

1. Service cables/lines from the transformer till it enters the building must be supported and protected.
2. Clean the ducts and cover it up with non-combustible materials.