

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: DEKKO READY WEAR LTD .
Address of the Factory	: Plot #M/1, Road #7, Section #7, Mirpur, Dhaka.
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	: 8 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	: Garments Factory
ii.	Structural System	: RC beam slab
iii.	Floor System	: Beam slab
iv.	Floor Area	: Unavailable
v.	No. of Stories	: 10 storied
vi.	Construction Year	: 1994
vii.	Foundation Type	: Unknown
viii.	Design Drawings	: Available (But not permitted)
ix.	Soil investigation Report	: Unavailable
x.	Construction Materials	: Concrete
xi.	Generator	: 1 st 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):

1. Reduce the stacking height of the fabric rolls to ensure that the loading from the fabric does not exceed 300kg/m² at any area.

Mid Term (Within 6 Weeks):

1. Building Engineer to check structural capacity of floor elements to establish actual structural capacity, and then implement loading demarcation plan for the storage area in particular.

Long Term (Within 6 Months):

1. Maintain loading plan and check for noncompliance.

The recommendations for Fire Safety corrective actions are:

Immediate (Within 1 month):

1. Remove locking features from all egress doors and 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 and 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. Regularly test the emergency lighting system on each floor and replace/repair lights as needed.

Short Term (Within 3 Months):

1. Separate the electrical supply room by a minimum 2-hr fire rated construction. Seal and/or protected all openings to maintain the required fire separations.
2. Separate the boiler room by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations.
3. Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Where separate storage rooms are not 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 93m²Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.
4. 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.
5. Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor level.
6. Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation.
7. Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separation.
8. Specify appropriate upgrade based on conditions: - Provide a minimum 2-hr fire-rated exit corridor between the day-care room and exit stair.
9. Specify appropriate upgrade based on conditions: - Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas).
10. Modify the egress door to swing in the direction of egress travel.
11. Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.

Mid Term (within 6 Months): NA

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. Separate earth connection must be provided for both electrical enclosure and door. Doors earth connection may be provided using braid for longer lasting.

Short Term (Within 3 Months):

1. Wire terminating to devices inside panel must be connected firmly and wires approaching devices must be securely fastened to avoid unintentional contact with live parts.
2. Extending main supply to SDBs from the MCCB by looping must be avoided. The main panel may be redesigned with required capacity breakers and distribute branches to other sub-panels.
3. Fix the cables support in cable trays and ensure protection for the cables from physical damage. Maintain a routine inspection program for the ladders, channels, trays etc at a regular interval
4. Fix the cables support in cable trays and ensure protection for the cables from physical damage. Maintain a routine inspection program for the ladders, channels, trays etc at a regular interval.
5. Provide rigid PVC/steel/GI pipes through walls to terminate concealed cables. Seal the penetrations of the conduit using noncombustible rated materials.
6. Install ladders to support the cables. Ensure the cables are tightly attached with the ladder and provide covers made of noncombustible material preferably metallic sheet to protect the cables' insulation from physical damage as well as prevent entering debris, dust and lint.

Mid Term (within 6 Months):

1. The floor level of the substation should be high enough to prevent entering storm water into the transformer room.

Long Term (More than 6 Months): NA