

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: Ananta Denim Technology Ltd.
Address of the Factory	: Noyabari, Kanchpur, Sonargaon, Narayanganj
Dhaka Present Status of the Factory	: Under Operation
Structural assessment conducted by	: Accord (Full report available at bangladeshaccord.org)
Date of Structural Inspection	: 18 March, 2014
Fire & Electrical assessment conducted by:	Accord (Full report available at bangladeshaccord.org)
Date of Fire & Electrical Inspection	: 25 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	: Steel framed, RC beam slab
iii.	Floor System	: Beam slab
iv.	Floor Area	: Unavailable
v.	No. of Stories	: 5/6 Storey
vi.	Construction Year	: 2013
vii.	Foundation Type	: Not applicable
viii.	Design Drawings	: Available (Local Union Municipality)
ix.	Soil investigation Report	: Unavailable
x.	Construction Materials	: Unavailable
xi.	Generator	: Ground floor in 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: NA

Mid Term (Within 6 Weeks): NA

Long Term (Within 6 Months):

- Building Engineer to create controlled loading plans for all floors, designating where and storage can / cannot be placed, and to what height.

The recommendations for Fire Safety corrective actions are:

Immediate:

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 / 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 all storage from exit stairs and egress paths.
4. Regularly inspect all exit signage and replace/install lights as needed to illuminate signs.
5. Remove manual on/off switches from emergency lighting and exit signage units to prevent them from being switched off.

Short Term (Within 3 Months):

1. 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 93m²

Separate areas of unenclosed combustible storage by a minimum clear distance of 3m.

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. 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.

4. Provide handrails on at least one side of exit stair.

5. Replace the single-station smoke alarms with automatic smoke detectors tied into the fire alarm system. Configure the fire alarm system to initiate occupant notification upon activation of any two smoke detectors in addition to the manual fire alarm stations.

6. Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.

7. 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. Replace the fire alarm system with a new, listed addressable fire alarm system in accordance with NFPA 72.

2. Replace the single-station smoke alarms with automatic smoke detectors tied into the fire alarm system. Configure the fire alarm system to initiate occupant notification upon activation of any two smoke detectors in addition to the manual fire alarm stations.

Long Term:

1. Replace the fire alarm system with a new, listed addressable fire alarm system in accordance with NFPA 72.

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The recommendations for Electrical Safety corrective actions are:

Immediate:

1. Missing pairs of arcing horn must be installed.
2. Provide earth connection for body and doors of metallic distribution boards using green cables preferably braid so that the metallic door remains at zero potential all the time.
3. Metallic cover (checkered plate) should be provided on cable trench to prevent the damage of cable insulation as well as prevent the ingress of debris, dust and lint.
4. Use cable lugs or crocodile clip to terminate the control cables to changeover switch.
5. Install separators between different phases of MCCB. Standard separators provided by the MCCB manufacturer must be used.

Short Term (Within 3 Months):

1. Use PVC/rigid pipe to pass the HT cable from pole to HT panel to prevent any physical damage of the cable (HT cable) insulation.
2. Metallic cover (checkered plate) should be provided on cable trench to prevent the damage of cable insulation as well as prevent the ingress of debris, dust and lint.
3. Cables behind panel must be supported and latched into cable trays or ladders.

Mid Term:

1. The entrance/exit to transformer room must be kept obstacle free. Remove the cable-drums placed on the way to transformers.

Long Term: NA
