Name of the Factory	:	**DENIER FASHIONS LTD.**
Address of the Factory	:	Zirabo, Ashulia, Savar, Dhaka
Dhaka Present Status of the Factory	:	**Under Operation**
Structural assessment conducted by	:	Accord (Full report available at bangladeshaccord.org)
Date of Structural Inspection	:	8 July, 2014
Fire & Electrical assessment conducted by	:	Accord (Full report available at bangladeshaccord.org)
Date of Fire & Electrical Inspection	:	17 August, 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 slab structure supporting a water tank
iii.	Floor System	: Beam slab
iv.	Floor Area	: Total floor area of the factory is 23,000 sft.
v.	No. of Stories	: Single storied
vi.	Construction Year	: 2006
vii.	Foundation Type	: Unavailable
viii.	Design Drawings	: Available (Do not match the actual site condition)
ix.	Soil investigation Report	: Unavailable
x.	Construction Materials	: Unavailable
xi.	Generator	: Ground floor, adjacent to the main, northeast building entrance

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. Produce as built drawings for all facilities of the factory.
2. Produce engineering drawings for the main shed and the mezzanine.
3. Carry out an Engineering Assessment on the shed to verify that it is stable under lateral loading as per BNBC provisions.
4. Carry out an Engineering Assessment to verify the cause of cracking at the stairway connection to mezzanine floor.
5. Carry out Engineering Assessment on steel roofs to determine if they are adequate and securely fixed especially regarding uplift caused by BNBC specified wind loads.

Long Term (Within 6 Months):

1. Carry out recommendations of Engineering Assessment.

The recommendations for Fire Safety corrective actions are:

Immediate (Within 1 month):

1. Remove the combustible material from the knitting section (knitting, knitting godown, fabric store) and generator room ceilings.

2. 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.

3. 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.

4. Provide exit signs above all exits to the exterior and all doors to the exit stairs.

5. Regularly test the emergency lighting system on each floor and replace/repair lights as needed.

Short Term (Within 3 Months):

1. Separate the boiler and generator rooms by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations. Provide separation of the diesel fuel storage by 2-hr fire rated construction.

2. Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Where a storage room is accessed via another storage room, only the encompassing storage room needs to be provided separation.

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 93m2

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

4. Provide minimum aisle widths of 36-in.

5. Relocate the day-care room so that the maximum travel distance to a building exit is 9m (30 ft).

6. Modify the egress doors to swing in the direction of egress travel.

7. Provide additional, remote means of egress.

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

9. Inspect, test and maintain the emergency lighting system in accordance with The ACCORD standard. Keep written records on-site.

10. Test the emergency lighting system on each floor and provide additional emergency fixtures to provide adequate illumination along the means of egress. Provide a minimum illumination of 10 lux at the floor level within exit stairs and exit discharge paths and minimum 2.5 lux along exit access aisles.

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.

The recommendations for Electrical Safety corrective actions are:

Immediate (Within 1 month):

1. Cable duct with cover must be installed for the cable support to prevent damages and stress to the cables.

2. Color code should be maintained as per standard i.e. Red, Yellow and Blue colors for phases; Black for neutral and Green for earthing. Panels including its door should be earthed with better earth continuity.

3. Terminate cables to bus bar by using proper sized lugs and punch the lugs by proper hand puncher or hydraulic puncher. Periodic inspection is needed to keep all the contacts tight.

4. Terminate cables to bus bar by using proper sized lugs and punch the lugs by proper hand puncher or hydraulic puncher. Periodic inspection is needed to keep all the contacts tight.

5. Heat resistant flexible pipes should not be used for carrying cables through its whole length except at the bending point.

6. Inside panel must be clean at all times and rearrange the cable inside panel.

7. Provide metallic enclosure for the MCCB and route cables using cable tray made of non-combustible material.

Short Term (Within 3 Months):

1. The factory must have as-build electrical SLD with electrical wiring layout designs and drawings. Any changes in load, protection system, conductors, generation and supply system must be reflected in the as-build SLD and drawings.

2. Thermo graphic scanning of the entire electrical system must be performed on tri-annual basis and recorded.

3. Electrical safety training and awareness program for the electrical personal and workers must be initiated and recorded.

4. Replace the trench cover with proper material.

5. Relocate the panel at suitable place to work easily.

6. Assign an electrical engineer to determine the capacity of the installation and redesign the wirings on cable tray if the wirings and loads exceed the capacity of the tray, install additional tray.

7. Provide the cable tray with cover instead of wooden material to ensure the mechanical protection of the cable otherwise cable insulation may damage due to falling object or stepping of occupants onto it.

Mid Term (Within 6 months): NA

Long Term (More than 6 months): NA