Name of the Factory	:	**DENIM ATTIRES LIMITED**
Address of the Factory	:	Nimtoli ,Shilmun, Tongi, Gazipur, Bangladesh
Dhaka Present Status of the Factory	:	**Under Operation**
Structural assessment conducted by	:	Accord (Full report available at bangladeshaccord.org)
Date of Structural Inspection	:	28 June, 2014
Fire & Electrical assessment conducted by	:	Accord (Full report available at bangladeshaccord.org)
Date of Fire & Electrical Inspection	:	1 July, 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	: Gross floor area of the factory building is 28035 sq. ft.
v.	No. of Stories	: 3 storied
vi.	Construction Year	: 2005
vii.	Foundation Type	: Unavailable
viii.	Design Drawings	: Available (Permit drawing)
ix.	Soil investigation Report	: Unavailable
x.	Construction Materials	: Unavailable
xi.	Generator	: There was no generator for this 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 (Now): NA

Mid Term (Within 6 Weeks):

1. Factory Engineer to update or produce as-built drawings for all the buildings in the factory.
2. Carry out an Engineering Assessment on the steel staircase to verify that it is adequately design for its purposes.
3. Fireproofing material for structural steel element is recommended as suggested in BNBC Codes.
4. Carry out Engineering Assessment on the building to verify that it is stable under lateral loading as per BNBC both in the current and proposed configurations.

Long Term (Within 6 Months):

1. Carry out recommendations of the Engineering Assessment.
2. Maintain standard of quality control and protection of the fire protection.
3. Carry out Engineering Assessment on the building to verify if the columns are adequately designed for a 6-storey building.
4. In-situ concrete testing may be required.

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.
2. Remove all storage from exit stairs and egress paths.
3. Configure the fire alarm system to initiate automatic occupant notification on all floor levels to facilitate whole building evacuation upon any manual fire alarm station activation.
4. Remove manual on/off switches from emergency lighting 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.
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 minimum 1.5-hr fire rated doors and seal all unprotected openings to separate the exit stairs from work areas 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.
4. Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation.
5. Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separation.
6. Provide additional means of egress.
7. Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.
8. Inspect, test and maintain the emergency lighting system in accordance with The ACCORD standard. Keep written records on-site.
9. Provide emergency backup power for the emergency lightings and exit signage.

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. Cables must be supported by ladder/tray with clamp at proper intervals and latched into cable trays or ladders.

2. Install cable duct to protect the output cables and provide covers made of non-combustible material preferably metal to protect the cables' insulation from any.

3. Motor in boiler must be firmly grouted on the concrete floor or fixed on the foundation structures.

4. Provide earth connection for body and doors of metallic distribution boards using green cables preferably braid so that the metallic door and body remain at zero potential all the time.

5. Every appliances frame should be connected to the earth.

6. The cable duct must be tightly covered to avoid physical damage to the cables from falling objects. The cover must prevent the channel from falling debris, dust and lint.

7. Unused holes in panel frame must be sealed with blanking plates.

8. Clean the ducts and cover tightly with non-combustible materials.

9. Wires in conduit must be protected throughout its length.

10. Wires joined in wiring duct must be removed and avoided. Joint shall be provided with proper connector and PIB tape wound around into a junction box.

11. Broken holder must be replaced with new one and firmly fixed to the fittings.

12. SLD and schematic drawings of electrical system shall be developed a qualified engineer. SLD shall show be maintained and continuously updated to reflect as built condition.

Short Term (Within 3 Months):

1. MCCB (electrical devices) mounted on the wall must be installed with protective enclosures. Protective devices should be encased in metal casing made of 20 SWG thickness metal sheets.

2. Construct cable trench to protect the cables to ensure the mechanical protection of the cable laid on floor otherwise cable insulation may damage due to falling object.

3. Common point of neutral and earthing must separate.

4. Seal all the penetrations using non appropriate fire rated material and ensure the cable insulation does not get damaged during sealing work.

5. Make circular hole at the base plate/top plate of panels and provide cable gland according to the respective cable size for cable entry and exit so that the cables are not stressed on the sharp edges of the hole of panels. Provide covers (of noncombustible material) if any additional gap remains after installing cable glands.

6. Cables below panel must be supported on cable trays and riser. Cables must be supported by gland before entering panels.

7. Looping at MCB terminals (arrays of MCBs) with jumpers must be avoided. Where necessary, it must be established with shorting links designed for such use.

Mid Term (Within 6 months): NA

Long Term (More than 6 months): NA