Name of the Factory	:	**CONCEPT KNITTING LIMITED**
Address of the Factory	:	Tilargati, Shataish Bazar, Tongi, Gazipur, Dhaka
Dhaka Present Status of the Factory	:	**Under Operation**
Structural assessment conducted by	:	Accord (Full report available at bangladeshaccord.org)
Date of Structural Inspection	:	18 June, 2014
Fire & Electrical assessment conducted by	:	Accord (Full report available at bangladeshaccord.org)
Date of Fire & Electrical Inspection	:	3 July, 2014 & 5 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 solid slabs, lightweight roof supported by steel purlins and joist
iii.	Floor System	: Beam slab
iv.	Floor Area	: Building 1 [Administrative building]: 19,176 sq.ft., Building 2: 21,119 sq.ft.
v.	No. of Stories	: 4 & 5 storied
vi.	Construction Year	: 2005 & 2010
vii.	Foundation Type	: Unavailable
viii.	Design Drawings	: Available for three main building
ix.	Soil investigation Report	: Available
x.	Construction Materials	: Unavailable
xi.	Generator	: Shed 7 and shed 8

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 review design, loads and column stresses for all internal columns of the building, plus those in the vicinity of the toilet block
2. Verify insitu concrete stresses either by cores or existing cylinder strength data for cores from 4 columns. Verify existing column reinforcement.
3. Factory Engineer to advise maximum floor loading allowances and storage loading to be reduced and monitored to suit.
4. Administration Building steel stairs should be designed and strengthened to support code vertical and lateral loads by the Building Engineer, or removed and replaced
5. Factory Engineer to review design of 4th floor slab and confirm that additional point loads from roof columns can be accommodated.
6. Factory Engineer to review structural adequacy of Dyeing Shed mezzanine floor extension steelwork connections.
7. Building Engineer to carry out a stability analysis of Dyeing Shed and propose a suitable east-west vertical bracing system.

8. Vertical bracing system to be installed.

Long Term (Within 6 Months):

1. Factory Engineer to produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity.
2. Factory Engineer to create loading plans for all buildings and actively implement throughout.
3. Dining roof trusses and connections should be designed and strengthened to support code vertical and lateral loads by the Building Engineer, or removed and replaced.
4. Building Engineer to review status of building permits and update as required.

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. 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. 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.

Short Term (Within 3 Months):

1. Separate the boiler, generator and transformer rooms by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations.
2. Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Where separate storage rooms may not be 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.
3. Separate the hazardous materials storage room by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations.
4. Separate the flammable liquid storage room by a minimum 2- hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations.
5. Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.
6. Inspect, test and maintain the emergency lighting system in accordance with The ACCORD standard. Keep written records on-site.
7. Provide minimum aisle widths of 36-in.

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. Extend the existing cable trench to route the HT cable safely removing acute bend. Ensure the cables are tightly latched inside the duct and provide covers made of non-combustible material preferably metallic sheet to protect the cables' insulation from any physical damage.

2. Panel base must be securely fixed to the foundation, with appropriate fastening devices such as nut and bolt system.

3. 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.

4. Single line diagram (according to the existing electrical connection) should be displayed on LT panel and all distribution board.

5. Every DBs and SDBs has to be maintained at its proper height as per the BNBC code. Access of the DBs and SDBs must be kept obstacle free for easy operation & maintenance.

6. Use rigid PVC pipe for surface and exposed wiring through-out its length and supported properly (clamped with saddle, at regular interval of 600 mm).The conduit shall run vertically or horizontally, shall never at angle.. Flexible conduit must not be used for long point wiring (except for special wirings).

7. Install a metallic stand (acid proof) and keep the batteries and charger on it. Insulate the battery terminals to avoid short circuit. Establish a maintenance checklist for the generator where the checking point of batteries should be included.

8. Sharp cable bends shall be avoided such that no stress is imposed on the termination of the cable or insulation of the cable. Switch off the power & Cut off the excess cable or/and provide proper support & protection to the cable installing tray.

Short Term (Within 3 Months): NA

Mid Term (Within 6 months): NA

Long Term (More than 6 months): NA