Name of the Factory	:	**BIRDS A&Z LTD.**
Address of the Factory	:	113 Baipail, Ashulia, Savar, Dhaka-1349
Dhaka Present Status of the Factory	:	**Under Operation**
Structural assessment conducted by	:	Accord (Full report available at bangladeshaccord.org)
Date of Structural Inspection	:	30 March, 2014
Fire & Electrical assessment conducted by	:	Accord (Full report available at bangladeshaccord.org)
Date of Fire & Electrical Inspection	:	29 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	: Garment factory
ii.	Structural System	: RC beam slab
iii.	Floor System	: Beam slab
iv.	Floor Area	: Typical ground floor area of Building A: 22,160 sq.ft.
v.	No. of Stories	: 6 storied
vi.	Construction Year	: 2008
vii.	Foundation Type	: Unavailable
viii.	Design Drawings	: Available (Signed by Cantonment Board in March, 2006)
ix.	Soil investigation Report	: Unavailable
x.	Construction Materials	: Unavailable
xi.	Generator	: Ground 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. Gable wall on north elevation of Building 1 to be removed to a height of 1.1m above slab level immediately.
2. Building Engineer to commence an assessment of the capacity of the remaining parapet wall.
3. Freestanding wall on roof of Boiler House to be removed immediately.
4. Building Engineer to commence an assessment of lateral stability of perimeter walls where there are high-level windows, leading to lack of support to top of walls.

Mid Term (Within 6 Weeks):

1. Building Engineer to complete assessment of the capacity of the remaining parapet wall and provide pier supports as necessary.
2. Implement remedial actions arising from assessment.
3. Building Engineer to review design, loads and column stresses for all internal ground floor columns, taking account of the slab verification as noted in Item 4.
4. Verify insitu concrete stresses either by 100mm dia. cores or existing strength data from min. 4 no. ground floor columns.

5. Building Engineer to confirm floor slab detail for all floors. It will be necessary to remove plaster to underside of slab to confirm slab details.

6. Building Engineer to design edge protection to roof perimeter.

7. Temporary barriers to be placed inside roof perimeter, and warning notices to be prominently located at roof access points.

Long Term (Within 6 Months):

1. Produce and actively manage a loading plan for all floor plates within the factory, giving consideration to floor capacity and column capacity.

2. Building Engineer to assess floor slabs in relation to information ascertained from assessment, and derive load plans for each floor.

3. Building Engineer to check column stresses in Buildings 1 and 2 based on floor slab information.

4. Building Engineer to update drawings to reflect as-constructed details.

5. Permanent edge protection to be installed.

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. Remove all storage from exit stairs and egress paths.

3. Keep egress paths and stairs clear of storage.

4. Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.

Short Term (Within 3 Months):

1. Separate the transformer, boiler, generator rooms and EMR by a minimum 2-hr fire-rated construction. Seal and or protected all openings to maintain the required fire separations.

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. Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separation.

4. 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.

5. Provide a minimum 2-hr fire-rated shaft to separate the utility risers from each floor level. Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation.

6. 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.

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

8. Based on ceiling configuration, provide additional detectors, where needed, and space them in accordance with NFPA 72. Alternatively, when complete sprinkler protection is provided throughout a floor with water flow devices designed to initiate the alarm notification, smoke and fire detection devices can be eliminated throughout the floor.

9. Provide a minimum 2-hr fire-rated shaft to separate the utility risers from each floor level. Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation.

Mid Term (within 6 Months): NA

Long Term (More than 6 months):

1. 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. Remove all the combustible material from the transformer room.

2. Clean regularly and protect the panel from lint and dust by closing all sides and doors.

3. Install separators between different phases of MCCB. Standard separators provided by the MCCB manufacturer must be used.

4. Cables on floor may be supported on trays installed at safe locations.

5. HT cable dropping from 11kV pole must be firmly fixed to the pole with supports and clamps.

6. Panel door(s) must be connected to the frame using earth bonding.

Short Term (Within 3 Months):

1. Electrical facilities must be maintained dry at all time to avoid damages due to moisture ingression.

Mid Term (Within 6 months):

1. Existing panels shall be rearranged to provide adequate working space, especially when the panels are open.

2. Expand the existing generator room to provide safe working space.

Long Term (More than 6 months): NA