Name of the Factory : **AMICHI APPARELS LTD.**

Address of the Factory : 122-123, DARUS SALAM, MIRPUR ROAD, DHAKA

Present Status of the Factory : **Under Operation**

Structural assessment conducted by : Accord

Date of Structural Inspection : March 02, 2014

Fire & Electrical assessment conducted by: Accord

Date of Fire & Electrical Inspection : March 03, 2014

Basic Information: The present garment factory is a commercial building with beam-column frame system. The following general information were noted:

i.	Building Usage Type	: Garments factory
ii.	Structural System	: RCC beam slab
iii.	Floor System	: Beam slab
iv.	Floor Area	: Unknown/unavailable
v.	No. of Stories	: 08 Stories
vi.	Construction Year	: 2000-2003
vii.	Foundation Type	: Not Applicable
viii.	Design Drawings	: September- 2006, from Rajuk.
ix.	Soil investigation Report	: Unknown/unavailable
x.	Construction Materials	: Unknown/unavailable
xi.	Generator	: Beside the building in isolated shade etc.

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:

1. All loads, including equipment, garments and personnel, at each floor level except ground floor, in the area highlighted in blue are to be removed pending verification of column capacity by the Building Engineer.
In the red areas all loads on the 5th floor are to be reduced to a maximum of 1kN/m2. Effectively this will require the 5th floor to be vacated.
Loads on all other floors, with the exception of the ground floor, are to be reduced to 1.5kN per sq m and loads of 2.0 kN per sq m are allowable on the 1 st and 7th floors.
Detailed Engineering Assessment of as built structure to be commenced as per attached scope.
Verify insitu concrete strengths (using min. 4 no. 100mm dia. Cores) and existing reinforcement for all columns

2. Sections of plaster finish to beams to be removed to investigate if cracks penetrate the building structure.
3. Building Engineer to confirm actual reinforcement provided in beams, design check on beams and adjacent slab to determine if these cracks are non-structural. (Refer to item 1 – Detail Engineering Assessment)
4. Building Engineer to prepare Allowable Floor Loading Plans (refer to Item 1)

5. As part of Detail Engineering Assessment, Building Engineer to commence re-survey of as-built structure and update drawings including a verification of the location of columns and column sizes.

Short Term (within 6-weeks):

1. Detailed Engineering Assessment to be completed

2. Produce and actively manage a loading plan for all floors within the building giving consideration to floor capacity and column capacity.

3Carry out repair remedial works as required

4. Complete as-built survey and Detail Engineering Assessment

5. Produce and actively manage a loading plan for all floors within the Factory giving consideration to floor capacity and column capacity.(Refer to Item 1)

6. Building Engineer to carry out design calculations to verify that roof beam/slab and columns have sufficient capacity to support fully filled water tanks.

7. Steel roofs to dining area and stairs should be designed by the Building Engineer including the provision of a lateral stability system and, if required, upgraded to support code vertical and wind loads or the area should be vacated and removed.

8. Extent of floor build-up loading within toilet areas to be surveyed and capacity of floor slab to be assessed as part of Detail Engineering Assessment (Refer to Item 1)

Mid Term (within 6-months):

1. Continue to implement load plan

2. Continue to monitor for cracking on an on-going basis

3. Continue to implement load management plan

The recommendations for Fire Safety corrective actions are:

Immediate:

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. Reduce occupant load to not more than available exit capacity (375). Alternatively, provide additional exits increase the occupant load.

3. Remove all storage from exit stairs and egress paths.

Short Term (within 3 Months):

1. Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction.

2. Remove combustible storage from the dining area or Provide dedicated storage room separated by minimum 1-hr fire-rated construction.

3. Separate the boiler room by a minimum 2-hr fire-rated construction. Seal and/or protected all openings to maintain the required fire separations. Door needs to be fire rated.

4. 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