Name of the Factory	:	**WAVE TEX APPARELS LTD**
Address of the Factory	:	Plot # B-132,133,123, BSCIC I/A, Shasongaon, Panchaboti, Fatullah, Narayanganj, Bangladesh.
Dhaka Present Status of the Factory	:	**Under Operation**
Structural assessment conducted by	:	Accord (Full report available at bangladeshaccord.org)
Date of Structural Inspection	:	27 May, 2014
Fire & Electrical assessment conducted by	:	Accord (Full report available at bangladeshaccord.org)
Date of Fire & Electrical Inspection	:	6 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	: RC Beam & Column with a 2-way spanning slab, RC Flat slab
iii.	Floor System	: Beam slab
iv.	Floor Area	: Unavailable
v.	No. of Stories	: 6 storied
vi.	Construction Year	: 2001, 2006 & 2008
vii.	Foundation Type	: Pad foundation
viii.	Design Drawings	: Available
ix.	Soil investigation Report	: Available
x.	Construction Materials	: Brick aggregated
xi.	Generator	: Ground floor southwest corner

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. Live loading to be reduced to 2kN/m2, pending verification of column capacity by the Building Engineer, in areas highlighted on the next sheets of this report (internalcolumnsC3 in Building B-132)
2. Building Engineer to review design, loads and column stresses in area identified above.
3. Verify insitu concrete strengths either by 100mm diameter cores or existing cylinder strength data for cores from min. 4 columns.
4. A Detail Engineering Assessment of buildingB-132 to be commenced, see attached Scope.
5. Reduce storage live load to 2kPa in all storage areas in building B-132 above first floor and keep empty space on 5th floor.
6. As part of Detail Engineering Assessment (see Item 1), Building Engineer to review design, loads and punching shear stresses.
7. Verify insitu concrete strengths (core or CAPS tests) and existing reinforcement for all slabs.

Mid Term (Within 6 Weeks):

1. Produce and actively manage a loading plan for all floor plates within buildings B-123B-133and B-132, giving consideration to floor capacity and column capacity. This should include a safe level to which any water tanks can be filled.

2. Detail Engineering Assessment to be completed.

3. Building Engineer to update the structural and architectural drawings to reflect the as-built layouts (may be compiled in the DEA (See Item 1).

Long Term (Within 6 Months):

1. Continue to implement load plan.

2. Monitor cracks in walls and affected elements. Building Engineer to investigate if cracks are only in the plastering.

3. Building Engineer to advice on load reduction and repair and strengthening of the beams if 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. Remove all storage from exit stairs and egress paths.

3. Keep egress paths and stairs clear of storage.

4. 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.

5. 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.

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

Short Term (Within 3 Months):

1. 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.

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. Provide minimum aisle widths of 36-in.

4. Provide handrails on at least one side of exit stair.

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.

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. Arrange periodic inspection & thermal scan to identify the overloading, loose connection, unbalanced load which may cause the excessive heat-rise and take action accordingly.

2. Proper connector (PVC connector) with PIB tape wound around, with junction box shall be provided for every cable joint.

3. Cable terminating at Generator output terminal box must be supported on riser and protected. Install cable duct to protect the generator output cables and provide covers made of noncombustible material preferably metal to protect the cables' insulation from any physical damage.

4. Install separators between different phases of MCCB to prevent flashover. Standard separators provided by the MCCB manufacturer must be used.

Short Term (Within 3 Months):

1. PVC conduit must be supported on cable tray/riser near entry to panel.

2. Wiring in flexible PVC conduit must be supported near panel on tray/riser to prevent stress at the entry point (socket & check nuts). Flexible conduit must not be used for long point wiring (except for special wirings).

3. Cables passing through permanent walls must be protected with rigid conduits/pipes and penetrations must be sealed using appropriate fire rated material.

4. Establish a routine cleaning program to keep neat and clean the top side of transformer. Shut the power of the transformer and clean the exterior of the transformer at scheduled period.

5. Wiring in flexible PVC conduit must be supported on tray/riser. Flexible conduit must not be used for long point wiring (except for special wirings).

6. All wiring in flexible PVC conduits must be additionally supported on tray/race way properly.

7. Power cable must be protected with cable tray/riser/PVC sanitation pipe from physical damage. Remaining gap must be sealed.

8. Existing wooden ducts supporting wiring may be replaced with non-combustible ducts (metal ducts). Provide cover made of noncombustible material on the channel for preventing ingress of dust and debris in future.

9. Provide cover on cable ducts made of noncombustible material preferably metallic sheet to protect the cables' insulation from physical damage as well as prevent the ingress of debris, dust and lint.

10. Existing aluminum wiring ducts with ends open must be closed with end cover. .Ends may be sealed to prevent ingression of lint and dust.

11. Large exhaust fans must be connected through control device such that it will not restart automatically when power is restored.

12. Damaged fittings must be replaced with new and safe fittings as required. Flexible conduit must not be used for long point wiring (except for special wirings).Use industrial graded flexible pipes instead of using normal flexible pipes (if required).

13. Wooden board must be removed from PVC conduit to reduce the risk of spreading fire due to short circuit.

14. Remove all the oil drum from generator room, any kind of combustible materials cannot be stored inside the generator room and near any electrical panel. Establish a routine cleaning program to keep the generator room neat, clean and dry.

15. Replace a damaged ceiling rose with new one and mount it on ceiling to suspend cable from the ceiling.

16. Existing exposed wiring PVC conduits fixed to ceiling/wall must be additionally clamped with saddle at regular interval (600 mm) or the cables may be supported on cable trays. Flexible conduit must not be used for long point wiring (except for special wirings).

17. 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.

Mid Term (Within 6 months): NA

Long Term (More than 6 months): NA