Name of the Factory	:	**VISION APPARELS (PVT) LTD**
Address of the Factory	:	Plot M-1/3,Section 14, Mirpur, Dhaka -1206, Bangladesh
Dhaka Present Status of the Factory	:	**Under Operation**
Structural assessment conducted by	:	Accord (Full report available at bangladeshaccord.org)
Date of Structural Inspection	:	5 May, 2014
Fire & Electrical assessment conducted by	:	Accord (Full report available at bangladeshaccord.org)
Date of Fire & Electrical Inspection	:	4 May, 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	: The floor area of each floor of building-1 is 471.4 sq.m and of building-2 is 581.45 sq.m,
v.	No. of Stories	: 9 & 7 storied
vi.	Construction Year	: 1998 & 1993
vii.	Foundation Type	: Unavailable
viii.	Design Drawings	: Available
ix.	Soil investigation Report	: Unavailable
x.	Construction Materials	: Unavailable
xi.	Generator	: Ground floor of Royal 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. Detail Engineering Assessment is required for the emergency staircase.
2. Detail Engineering Assessment is required for the foundations of the 7 storey building
3. Factory Engineer to develop a loading plan for each floor within the factory complex, giving consideration to slab, beam and column capacity.

Long Term (Within 6 Months):

1. Implement any works deemed necessary by the Detail Engineering Assessment.
2. Implement and actively manage the loading plan.

The recommendations for Fire Safety corrective actions are:

Immediate (Within 1 month):

1. Remove all storage from exit stairs and egress paths.
2. 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.

3. Replace all gates and 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.

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

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

Short Term (Within 3 Months):

1. 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.

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

4. Reduce occupant load to not more than available exit capacity or provide additional exits.

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

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

7. Mount manual fire alarm activation point next to building exit access.

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

9. Provided 2-hr fire-rated construction or provided minimum 1.5-hr fire-rated door.

10. Reduce occupant load to not more than 49 persons. Provide additional means of egress.

11. Mount manual fire alarm activation point next to building exit access.

Mid Term (within 6 Months):

1. Provide 2-hr fire-rated exit passageway leading directly outside (vestibules to separate any storage areas) or provide sprinkler protection for discharge floor in accordance with NFPA 13.

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. Transformer oil must be filled to the required level. Preferably, Assign Supplier Company to take necessary steps as soon as possible.

2. Remove all the combustible materials from electrical panel .Establish a periodic cleaning program and maintain records of the activities and also proper mechanical support should be used for CT connection.

Short Term (Within 3 Months):

1. Provide steel pipe of required size to support and protect HT cable from physical damage by moving objects.

2. Construct a separate room for the transformer by constructing barrier (brick) walls (fire rated wall) up to the ceiling; the minimum area of the transformer room should be 10-13 sq m (according to BNBC 2006, Section-2.6.3).

3. Assign a transformer servicing consultant to replace silica gel and fill up breather oil cup with transformer oil. Perform a routine maintenance program to check and maintain smooth operation of all equipment.

4. Electrical Panels located in below stairs must be relocated to safe location. Every item of installation shall be arranged so as to facilitate its operation, inspection, maintenance & access. Keep the provision for appropriate door while constructing the wall.

5. HT cable terminating at the transformer bushing must be supported on firmly fixed riser to reduce stress at the termination.

6. Cable(s) laid in existing raised cable trench, filled with sand and concreted (thin cover) must be protected with covers (slab/checkered plate).

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

8. All cables passing through permanent wall must be protected in steel pipes and remaining holes around the pipe must be sealed.

9. HT and LT cables may be laid in different trays, ladder in the same trench to avoid crossover.

10. Install cable tray or ladder with protective cover to support the cables entering and leaving the changeover switch as well as reduce cable strain on the termination point.

Mid Term (Within 6 months):

1. Excess length of existing HT cables coiled near transformer must be protected and laid safely.

Long Term (More than 6 months): NA