Name of the Factory	: **ANANTA DENIM TECHNOLOGY LTD**
Address of the Factory	: Nayabari, Kanchpur, Sonargaon, Narayanganj, Dhaka, Bangladesh
Present Status of the Factory	: **Under Operation**
Structural assessment conducted by	: Alliance
Date of Structural Inspection	: 19-May-2014
Fire & Electrical assessment conducted by	: Alliance
Date of Fire & Electrical Inspection	: 14-Nov-2013 & 08-Jun-2014
BGMEA Membership No	: 4697

BASIC INFORMATION:

There are 02 main buildings and 09 ancillary buildings. The following general information was noted:

i.	Building Usage Type	: Garments Factory
ii.	Structural System	: Structural Steel Frame
iii.	Floor System	: Deck slab
iv.	Floor Area	: 128,000 Sft + 190,000 Sft
v.	No. of Stories	: Sewing: 6 storied, Wash: 3 storied
vi.	Construction Year	: 2008-2013
vii.	Foundation Type	: Isolated footing
viii.	Design Drawings	: Available
ix.	Soil investigation Report	: Available
x.	Construction Materials	: Steel
xi.	Generator	: Ground Floor

RECOMMENDATIONS FOR CORRECTIVE ACTION:

The recommendations of corrective action for Structural, Fire and Electrical Safety comprises of Short Term, Mid Term and Long Term basis are as follows:

The recommendations for Structural Safety corrective actions are:

Immediate : NA

Short Term: (3 Weeks) :

i. "Develop a program to ensure that all live loads for which a floor or roof has been designed for will not be exceeded. The designated Load Manager shall over see this program and ensure it is enforced."
ii. Designate a representative as the Factory Load Manager. The Factory Owner shall ensure that at least one individual, the Factory Load Manager who is located onsite full time at the factory, is trained in calculating operational load characteristics of the specific factory. The Factory Load Manager shall serve as an ongoing resource to RMG vendors and be responsible to ensure that the factory operational loads do not at any time exceed the factory floor load limits as described on the Floor Load Plans.

Mid Term (6 Weeks) :

i. Engage a qualified structural engineer to develop credible structural document to confirm the structural integrity of the buildings. Documents must comply with Alliance Standard Part 8 Section 8.19 and 8.2.
ii. Have a qualified structural engineer develop Floor Loading Plans for all the three buildings as per the requirements of Part 8 Section 8.20.5.3
iii. Have a qualified structural engineer prepare load plans for all the three buildings including the information required in Section 8.20 of the Alliance Standard.
iv. Provide signage or the appropriate markings at all areas used for storage to indicate the acceptable loading limits detailed in the Load Plan.
v. Under guidance from a qualified structural engineer, address all areas of needed maintenance.

Long Term (6 Months) :

i. Factories should apply for Certificate of Occupancy to proper authority.

The recommendations for Electrical Safety corrective actions are*:*

Immediate (3 to 6 Days)	Generator room should be kept clean and free from dirt , debris, inflammable materials etc.
Short Term (3 Weeks)	Switchboards and/or distribution boards should have capacity information labels e.g current carrying capacity of bus bar, rating of main incoming breaker , size of panel and permitted no. of CB, maximum permitted load connection capacity, etc. Provide earthing of equipment at required locations and connect to required number of electrodes. Refer to the BNBG for required number of electrodes.
Mid Term (6 Weeks)	Multiple connection /looping should be removed and connection should provide individually from bus bar. Install phase separators between terminal connections at the noted locations. Provide clear identification markings (MDB, All SDBs, Change Over System). Over heating equipment should be checked and if not possible to control over heating then need to replace by sound one. Have a qualified electrical engineer develop an as-built single line diagram detailing key components and capacity of the electrical system.

Long Term (6 Months)	Ensure appropriate size for generator room in order to properly access the generator to perform routine maintenance activities. Have a qualified electrical engineer design a lightning protection system according to the BNBC requirements. Have a licensed electrician install the designed system.

The recommendations for Fire Safety corrective actions are:

Immediate	NA
Short Term (3 Weeks)	
Mid Term (6 Weeks)	Install a new automatic fire alarm and detection system. Once installed, arrange for direct connection of the fire alarm and detection system to a central station monitoring service or the Fire Service and Civil Defense per Alliance Standard Part 5 Section 5.7.5 Monitoring. Until that time that a central station monitoring service or direct connection to the Fire Service and Civil Defense can be set up, a person trained to contact the Fire Service and Civil Defense in the event of fire alarm activation shall be provided. An annunciator shall be located in a constantly attended location (such as a fire control room) to alert this person. Install signage adjacent to each stair door indicating the stair name and the floor level in both English and Bengali.
Long Term (6 Months)	Provide fire doors at all openings into the stair enclosures. Doors should be listed, labeled, and have a minimum 90 min rating. Doors should swing in the direction of egress. Replace all non-compliant doors in the means of egress with side-hinged swinging type doors. Provide fire-rated construction for the Main and Stitching building. As an alternate, automatic sprinkler protection can be provided throughout the original Main Building. Provide fire-resistive rated construction barriers for exit enclosures in accordance with Alliance Standard Section 6.3.1.2. Consult a qualified fire protection engineer to design the required rated construction barrier. Install a dedicated fire pump for the facility in accordance with NFPA 20. Also, install a water storage tank in accordance with NFPA 22. Install initiating devices and notification appliances as required by the Alliance Standard and NFPA 72. Devices should be part of an automatic fire alarm and detection system for the facility. Install a Class III standpipe system at required locations. Standpipe system must comply with NFPA 14. Submit

	detailed plans and calculations to Alliance for review. Revise exit path to maintain clear path of egress from building at all times. Provide fire-resistive rated construction barriers between hazard types in accordance with Alliance Standard Sections 3.4.2 and 4.5. Consult a qualified fire protection engineer to design the required rated construction barrier. Install signage at required locations and on required equipment. Signage must comply with NFPA 14. Level the egress walking surface to eliminate any potential trip hazards. Post the occupant load for all assembly and production floor areas in a conspicuous space near the main exit or exit access doorway for the space. Install emergency lighting for all paths of egress including all aisles in Main building in accordance with Alliance Standard Section 6.7. Complete the handrail to the end of the stair run. Connect the handrails at the end to provide a continuous surface. Develop a hot work permit program. The program must comply with the requirements of NFPA 51B. Install signage at required locations and on required equipment. Signage must comply with NFPA 14.