INITIAL FIRE ASSESSMENT REPORT (FAR)

Factory Name:	**Onus Garments Ltd**
Address:	**Outside Industrial Park Joy Bangla Road, Kunia, K.B. Bazar, Barabari Gazipur Dhaka Bangladesh**
Assessor:	**Bureau Veritas**
Date:	**12 May 2014**

Introduction to the Report

The following report contains a site profile and summary of non-conformities identified during an onsite assessment commissioned by the Alliance for Bangladesh Worker Safety (Alliance) and conducted by a third-party Qualified Assessment Firm (QAF). The assessment was conducted against the Alliance for Bangladesh Worker Safety Assessment Protocols (APs) and Fire Safety and Structural Integrity Standard, which is harmonized with the factory assessment guidelines developed by Bangladesh University of Engineering and Technology (BUET) for the Bangladesh National Tripartite Plan of Action (NTPA). The goal of the Alliance process is to provide clear and practical technical requirements by which Bangladeshi Ready Made Garment (RMG) Factories producing for Alliance members may be consistently and fairly evaluated for fire, structural, and electrical safety in a non-duplicative manner. Each assessment will prompt action plans that will be used by RMG factories to systematically and sustainably improve safety conditions for garment workers. Beyond tracking and reporting on action steps taken in a transparent manner, the Alliance organization and its members will seek to further support factory improvements through technical assistance, training, implementation support for functional Worker Committees, and in some cases financial assistance and wage support for workers if factories are closed for remediation.

The contents of the report do not constitute a guarantee of compliance with the applicable laws, the Alliance Standard or the absolute or continued safety against fire, electrical and/or structural integrity issues that may lead to injury or loss of life. The report is designed to provide a non-exhaustive summary of risk issues, based on a limited sampling and duration of time onsite by the named QAF. Neither the QAF nor the Alliance can certify or guarantee the quality, outcome, or effectiveness of actions taken in response to the report.

For more information and report feedback please go to: www.bangladeshworkersafety.org.

GENERAL INFORMATION

General Information	
Factory Name:	Onus Garments Ltd
Address:	Outside Industrial Park Joy Bangla Road, Kunia, K.B. Bazar, Barabari Gazipur Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Gazipur
Zip Code:	1704
Audit Duration:	1 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	05-12-2014
Final Report Date:	06-28-2014
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	There are seven buildings in the factory premises out of which one is main production building and six are ancillary buildings. The buildings are named as: 1) Eight story RCC main production building-1, 2) Two story RCC building-2 (Substation and Generator), 3) Two story medical and childcare shed-1, 4) Single story boiler shed-2, 5) Single story fire pump station shed-3, 6) Single story goods store shed-4, 7) Single story store shed-5.
Is the building(s) owned or rented by the Factory:	Owned
Number of Building Levels (Stories):	1) Eight story RCC main production building-1: Building height (Highest occupied floor level): 21.35 m or 70 ft [Height up to roof: 24.4 m or 80 ft], Stories above grade: 8, Stories below grade: 0, Occupied levels: 8, 2) Two story RCC building-2 (Substation and Generator): Building height (Highest occupied floor level): 3.45 m or 11.5 ft [Height up to roof: 6.10 m or 20 ft], Stories above grade: 2, Stories below grade: 0, Occupied levels: 2, 3) Two story medical and childcare shed-1: Building height (Highest occupied floor level): 3.45 m or 11.5 ft [Height up to roof: 6.1 m or 20 ft], Stories above grade: 2, Stories below grade: 0, Occupied levels: 2, 4) Single story boiler shed-2: Building height (Highest occupied floor level): 30 cm or 1 ft above grade [Height up to roof: 3.1 m or 10 ft], Stories above grade: 1, Stories below grade: 0, Occupied level: 1 and for remaining structures, see the description.
Approximate Building Area (SF):	Total area of buildings in the factory premises: 114644.00 sft. Building wise breakdown as follows: 1) Eight story RCC main production building-1: 106800.00sft (Ground floor: 16000.00 sft, Mezzanine floor: 6400.00 sft, 1st floor: 15660.00 sft, 2nd floor: 15660.00 sft, 3rd floor: 15660.00 sft, 4th floor: 15660.00 sft, 5th floor: 15660.00 sft, 6th floor: 6100.00 sft), 2) Two story RCC building-2 (Substation and Generator): 1800.00sft (Ground Floor: 900.00sft, 1st floor: 900.00 sft), 3) Two story medical and childcare shed-1: 3560.00 sft, 4)

	Single story boiler shed-2: 216.00 sft, 5) Single story fire pump station shed-3: 168.00sft, 6) Single story goods store shed-4: 600.00 sft, 7) Single story store shed-5: 1500.00sft.
Date of Building Construction:	No record for date of construction was found from factory personnel.
Date of Last Building Renovation/Addition:	No Record for date of renovation or addition was found from factory personnel.
Ancillary Structures in Complex:	1) Two story RCC building-2 (Substation and Generator), 2) Two story medical and childcare shed-1, 3) Single story boiler shed-2, 4) Single story fire pump station shed-3, 5) Single story goods store shed-4, 6) Single story store shed-5.
Approximate Ancillary Structures Area (SF):	1) Two story RCC building-2 (Substation and Generator): 1800.00sft (Ground Floor: 900.00sft, 1st floor: 900.00 sft), 2) Two story medical and childcare shed-1: 3560.00 sft, 3) Single story boiler shed-2: 216.00 sft, 4) Single story fire pump station shed-3: 168.00 sft, 5) Single story goods store shed-4: 600.00 sft, 6) Single story store shed-5: 1500.00sft.
Number of Occupants:	Total number of occupants: 2229. 1) Eight story RCC main production building-1: 2174 (Ground floor: 25, 1st floor: 400, Mezzanine Floor: 8, 2nd floor: 335, 3rd floor: 490, 4th floor: 450, 5th floor: 435, 6th floor: 31), 2) Two story RCC building-2 (Substation and Generator): 4, 2) Two story medical and childcare shed-1: 35, 4) Single story boiler shed-2: 1, 5) Single story fire pump station shed-3: 1, 6) Single story goods store shed-4: 2, 7) Single story store shed-5: 2.
Number of Ancillary Levels (Stories):	1) Two story RCC building-2 (Substation and Generator): Building height (Highest occupied floor level): 3.45 m or 11.5 ft [Height up to roof: 6.10 m or 20ft], Stories above grade: 2, Stories below grade: 0, Occupied levels: 2, 2) Two story medical and childcare shed-1: Building height (Highest occupied floor level): 3.45 m or 11.5 ft [Height up to roof: 6.1 m or 20 ft], Stories above grade: 2, Stories below grade: 0, Occupied levels: 2, 3) Single story boiler shed-2: Building height (Highest occupied floor level): 30 cm or 1 ft above grade [Height up to roof: 3.1 m or 10 ft], Stories above grade: 1, Stories below grade: 0, Occupied level: 1, 4) Single story fire pump station shed-3: Building height (Highest occupied floor level): 30 cm or 1 ft above grade [Height up to roof: 3.1 m or 10 ft], Stories above grade: 1, Stories below grade: 0, Occupied level: 1 and for remaining structures, see the description.
Occupancy Type:	1) Eight story RCC main production building-1: [Ground floor: E4 (Dining Room), H2 (ware house, Fabric store, Accessory store, Cartoon store), F1 (Office), Mezzanine floor: H2 (Finished goods store), 1st floor: G2 (Sewing, Cutting, Finishing, Packing), H2 (Miscellaneous store), F1 (Office), K (Mechanic room), 2nd floor: G2 (Sewing, Cutting, Finishing, Packing), H2 (Miscellaneous store, Finished goods store), F1 (Office), 3rd floor: G2 (Sewing, Cutting, Finishing, Packing), H2 (Miscellaneous store, Finished goods store), F1 (Office), K (Mechanic room), 4th floor: G2 (Sewing, Cutting, Finishing, Packing, Spot removing room), H2 (Miscellaneous store, Finished goods store), F1 (Office), 5th floor: G2 (Sewing, Cutting, Finishing, Metal detection), H2 (Accessory store), 6th floor: G2 (Sewing, Cutting), H2 (Miscellaneous store, Finished goods store), F1 (Office)], 2) Two story RCC building-2 (Substation and Generator): K (Substation and generator) and see the description.
Construction Type:	1) Eight story RCC main production building-1: Type 1, 2) Two story RCC building-2 (Substation and Generator): Type 1, 3) Two story medical and childcare shed-1: Non-rated, (Security and detection panel room is 2 storied and Type-1, remaining part is single storied masonry construction with non-rated tally slab), 4) Single story boiler shed-2: Non-rated, 5) Single story fire pump station shed-3: Non-rated, 6) Single story goods store shed-4: Non-rated, 7) Single story store shed-5: Non-rated.
Height of Highest Occupied Floor Level Above Grade:	1) Eight story RCC main production building-1: 21.35 m or 70 ft, 2) Two story RCC building-2 (Substation and Generator): 3.45 m or 11.5 ft, 3) Two story medical and childcare shed-1: 3.45 m or 11.5 ft, 4) Single story boiler shed-2: 30 cm or 1 ft above grade, 5) Single story fire pump station shed-3: 30 cm or 1 ft above grade, 6) Single story goods store shed-4: 30 cm or 1 ft above grade, 7) Single story store shed-5: 30 cm or 1 ft above grade.

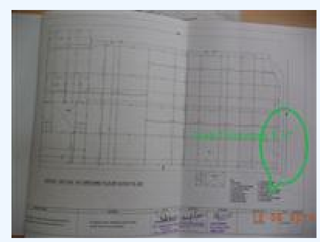
ASSESSMENT FINDINGS

Fire Protection Construction

Question:	Certificates of Occupancy for each building have been issued and are on file.
Priority Level:	Low
Non-Compliance Level:	1
Description:	No occupancy certificate available for any building in the factory premises.
Source of Findings:	Document Review: There was no occupancy certificate for any of the buildings among the documents shown by the factory concerned people.
Suggested Plan of Action:	Apply to Tongi Pouroshova for issuance of occupancy certificate and pursue the matter to expedite.
Suggested Deadline Date:	07 Aug 2014
Standard:	Are certificates of occupancy provided for each building or ancillary structure?
Question:	Is the fire resistance materials of structural members in good condition and free of damage?
Priority Level:	Medium
Non-Compliance Level:	
Description:	There was no damage found in the fire resistance materials of the structural members in the RCC buildings. But the other ancillary sheds are masonry construction with tin roof, therefore non-rated.
Source of Findings:	Visual Assessment: On visual inspection, no damage or distress was noticed in the structural members of the buildings.
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	BNBC Part 3 Chapter 3

Question:	Are openings and penetrations through rated walls and/or assemblies protected?
Priority Level:	High
Non-Compliance Level:	3
Description:	There are unprotected openings in the west side wall of the ground floor warehouse (H2) where approximately 100 tons of fabrics are stored. There is a building with unprotected openings located within 3 m of west side wall. As per Alliance Standard, 0.75 hr fire resistive opening assemblies are required at that wall. The south wall of the stair has a window with grill and unprotected openings are present on each floor within 10ft of that stair. Such unprotected openings shall have 1.5 hr rating as per the Alliance Standard.
Source of Findings:	Visual Assessment: Some unprotected openings through rated walls were observed during site visit.
Suggested Plan of Action:	Provide fire resistance rated opening protectives at all windows and other openings on all the fire rated wall across the entire premises. Close these openings if they are not required.
Suggested Deadline Date:	18 Sep 2014
Standard:	Includes doors, windows, ducts, piping, etc. Reference Alliance Standards Part 4 Section 4.6 Opening Protectives and Section 4.7 Penetrations

Question:	Is each floor separated with a fire-resistive rated construction barrier?
Priority Level:	High
Non-Compliance Level:	
Description:	The slab thickness is 5.5 inch according to structural drawing. From physical measurement, slab thickness was found to be 7 inch with finishing, which is capable of providing approximately 3 hour fire resistance.According to Alliance Standard Section 4.4 or BNBC Table 3.3.1 (pg-10383) , slab for a Type 1 building needs to have 3 hour fire rating. From Alliance Standard Section 4.4.1 or BNBC Table 4.1.1 (pg-10409), fire rating of 6 inch and 8 inch RC slabs are 2.5 hour and 3.75 hour respectively. Therefore, the slab may be considered not to have required fire rating to separate the floors.
Source of Findings:	Visual Assessment: Slab thickness was measured 7.0 inch and no crack or sign of distress was observed.
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation

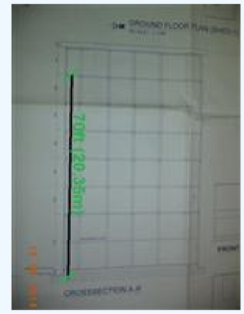


Question:	Are separations between hazards provided with fire-resistive rated construction barriers.
Priority Level:	Medium
Non-Compliance Level:	2
Description:	There is a spot removing room on 4th floor with glass and aluminum partitions. This room needs to be fire separated with a 1.0 hr rated construction barrier along with 0.75 hr rated opening assemblies. Store (H2) & production area (G2) on 2nd floor are not separated by fire-resistant rated construction barriers. These different occupancies need to be fire separated according to Alliance Standards. Similar problems were found on 3rd and 4th floors.
Source of Findings:	Visual Assessment: The store and production area not fire separated.
Suggested Plan of Action:	Provide fire-resistant rated construction barriers between hazard types in accordance with Alliance Standard. Consult a qualified fire protection engineer to design the required rated construction barrier.
Suggested Deadline Date:	11 Dec 2014
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation

Question:	Are exit enclosures provided with fire-resistive rated construction barriers?
Priority Level:	High
Non-Compliance Level:	3
Description:	There are two stairs in the main building. The south wall of the east stair has a window with a grill and unprotected openings are present on each floor within 10ft of that stair. Such unprotected openings shall have 1.5 hr rating as per the Alliance Standard. Moreover, doors fitted at exits do not have any credible certificates.
Source of Findings:	Visual Assessment: Unprotected openings were found within 10 ft of east staircase.
Suggested Plan of Action:	Provide 2 hr fire-resistive rated construction barriers at exit enclosures. Fit side-swinging, self-closing, non-lockable fire doors of 1.5 hr rating in all stairwell enclosures that swing in the direction of egress. Consult a qualified fire protection engineer to design the required rated construction barriers.
Suggested Deadline Date:	18 Sep 2014
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation

Question:	Are shafts provided with the minimum fire-resistance rating?
Priority Level:	High
Non-Compliance Level:	3

Description:	There are two lift cores beside the South evacuation stair but no elevator is yet installed. The RCC wall enclosing the lift cores have 2 hr fire rating and the door openings on each floor level are temporarily sealed by brick wall with required fire rating. However, non-rated opening between north- lift core and South evacuation stair were found on each floor level.	
Source of Findings:	Photograph: Non-rated opening between north- lift core and South evacuation stair were found on each floor level.	
Suggested Plan of Action:	Close or seal all those openings available between lift core and evacuation stairs by minimum 2 hr fire rated barrier.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Reference Alliance Standards Part 4 Section 4.5.7.1 through 4.5.7.3	
Question:	Fire dampers installed on air-conditioning and ventilation ducts appear to be in good condition and operational.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	No air-conditioning or ventilation duct available for which fire damper is required.	
Source of Findings:	Visual Assessment: During site tour no air-conditioning or ventilation duct was found.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standards Part 4 Section 4.6 Opening Protectives and Section 4.7 Penetrations	
Question:	If the building contains a vertical opening known as an atrium, have provisions been made to comply with Alliance Standard 3.7?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	No atrium is available in the buildings.	
Source of Findings:	Visual Assessment: During site tour, no atrium was found.	
Suggested Plan of Action:		
Suggested Deadline Date:		

Standard:	Reference Alliance Standards Section 3.7 Atrium	
Fire Protection Systems		
Question:	Is the building protected by an automatic sprinkler system?	
Priority Level:	High	
Non-Compliance Level:		
Description:	There is no sprinkler system available in any of the building or shed in the factory premises. Since the height of the highest occupied level of the main building (the tallest building in the factory premises) is 21.35m (70ft) and is less than 23m or 75 ft, an automatic sprinkler system is not required for any of these buildings as per Alliance Standard Section 5.3.	
Source of Findings:	Visual Assessment: During site tour, the height of the buildings was measured and it was realized that sprinkler system is not required in the buildings.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standards Part 3 Section 3.5.3 Existing Buildings, Part 5 Section 5.3 Automatic Sprinkler Systems and Section 6.13 Travel Distance	
Question:	Design criteria of sprinkler system?	
Priority Level:		
Non-Compliance Level:		
Description:	Sprinkler system is not required for the buildings and no sprinkler system is installed, therefore design criteria is not applicable in this case.	
Source of Findings:	Visual Assessment: During site tour no sprinkler system was found installed.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Provide the criteria used in the design of the sprinkler system.	
Question:	Commodity Class used for the design of the sprinkler system?	
Priority Level:		
Non-Compliance Level:		
Description:	Sprinkler system is not required for the buildings and no sprinkler system is installed, therefore commodity class is not applicable in this case.	

Source of Findings:	Visual Assessment: During site tour no sprinkler system was found installed.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 13 Chapter 5	
Question:	Occupancy Classification used for the design of the sprinkler system?	
Priority Level:		
Non-Compliance Level:		
Description:	Sprinkler system is not required for the buildings and no sprinkler system is installed, therefore occupancy classification is not applicable in this case.	
Source of Findings:	Visual Assessment: During site tour no sprinkler system was found installed.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 13 Chapter 5	
Question:	Are inspection, maintenance, and testing procedures of the sprinkler system documented and up to date?	
Priority Level:	Low	
Non-Compliance Level:		
Description:	Sprinkler system is not required for the buildings and no sprinkler system is installed, therefore inspection, maintenance and testing procedure is not applicable in this case.	
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 25 Chapter 5 Sprinkler Systems Table 5.1.1.2	
Question:	Are identification signs for the sprinkler system installed at the required locations?	
Priority Level:	Low	
Non-Compliance Level:		

Description:	Sprinkler system is not required for the buildings and no sprinkler system is installed, therefore identification signs are not applicable in this case.	
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 13	
Question:	Sprinkler system piping is free of mechanical damage, leakage, and corrosion.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	Sprinkler system is not required for the buildings and no sprinkler system is installed, therefore this issue is not applicable in this case.	
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	NFPA 25 Chapter 5 Section 5.2.2 Pipe and Fittings	
Question:	Sprinkler system piping is not subjected to external loads by materials either resting on the pipe or hung from the pipe?	
Priority Level:	Low	
Non-Compliance Level:		
Description:	Sprinkler system is not required for the buildings and no sprinkler system is installed, therefore this issue is not applicable in this case.	
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 25 Chapter 5 Section 5.2.2.2	
Question:	Are hangers, bracing, and restraints properly installed and supporting the system piping?	

Priority Level:	Medium	
Non-Compliance Level:		
Description:	Sprinkler system is not required for the buildings and no sprinkler system is installed, therefore this issue is not applicable in this case.	
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 13 Chapter 9 Hanging, Bracing, and Restraint of System Piping.	
Question:	Sprinklers do not show signs of leakage, are free of corrosion, have not been painted, and are not physically damaged.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	Sprinkler system is not required for the buildings and no sprinkler system is installed, therefore this issue is not applicable in this case.	
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 25 Chapter 5	
Question:	All valves controlling the automatic sprinkler systems are electrically supervised by a listed fire alarm system control unit.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	Sprinkler system is not required for the buildings and no sprinkler system is installed, therefore this issue is not applicable in this case.	
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		

Standard:	Reference Alliance Standard Part 5 Section 5.3.5 Supervision and Alarms.	
Question:	Does the automatic sprinkler system have an approved audible device activated by waterflow equal to the flow of one sprinkler?	
Priority Level:	Low	
Non-Compliance Level:		
Description:	Sprinkler system is not required for the buildings and no sprinkler system is installed, therefore this issue is not applicable in this case.	
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standards Part 5 Section 5.3.5.2 Alarms.	
Question:	Are sprinklers spaced and installed at the required heights in order to provided required coverage and protection?	
Priority Level:	High	
Non-Compliance Level:		
Description:	Sprinkler system is not required for the buildings and no sprinkler system is installed, therefore this issue is not applicable in this case.	
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 13	
Question:	Are storage racks and shelves compliant based on class of commodity storage?	
Priority Level:	High	
Non-Compliance Level:		
Description:	Sprinkler system is not required for the buildings and no sprinkler system is installed, therefore this issue is not applicable in this case.	
Source of Findings:		
Suggested Plan of Action:		

Suggested Deadline Date:	
Standard:	Reference NFPA 13 Chapter 13, 14, 15, 16, or 17
Question:	Aisles in storage areas are free of storage based on design criteria used for the sprinkler system.
Priority Level:	Medium
Non-Compliance Level:	
Description:	Sprinkler system is not required for the buildings and no sprinkler system is installed, therefore this issue is not applicable in this case.
Source of Findings:	
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Alliance Standard Part 5 Section 5.3.6.3
Question:	All storage is maintained with a 460 mm (18 in.) minimum clearance from the top of storage to the sprinkler deflector.
Priority Level:	Medium
Non-Compliance Level:	
Description:	Sprinkler system is not required for the buildings and no sprinkler system is installed, therefore this issue is not applicable in this case.
Source of Findings:	
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Reference Alliance Standards Part 5 Section 5.3.6.1 Storage Clearance

Question:	Does the building have a Standpipe System?	 
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Height of the highest occupied floor of the main building is 21.35m(70ft) above grade, i.e above 10m (33 ft). An automatic sprinkler system is not provided in the building. A standpipe system (class-III) needs to be installed throughout the building where the highest occupied floor is more than 10 m (33 ft) above grade or more than 10 m (33 ft) below grade as per Alliance Standard, but there is no standpipe system in the main and ancillary buildings that meets NFPA requirement of NFPA. Only a class-II (40mm dia) standpipe system is available on floors, no class-I (65 mm dia) connections are available at stairwells. Moreover, no approved hydraulic design for standpipe system was found.	
Source of Findings:	Visual Assessment: Only class-II standpipe system was found.	
Suggested Plan of Action:	Install NFPA-14 compliant standpipe system at required locations.	
Suggested Deadline Date:	18 Sep 2014	
Standard:	Does the building have a standpipe system installed where required. Alliance Standard Part 5 Section 5.4.2	
Question:	Are inspection, maintenance, and testing procedures of the standpipe and hose system documented and up to date? Including inspection and testing of hoses if provided.	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	A NFPA-14 compliant standpipe system is not installed in the building. Inspection,maintenance, and testing procedures of the installed class II standpipe and hose are not documented and up to date.	
Source of Findings:	Document Review: Relevant documents are not compliant with NFPA 25.	
Suggested Plan of Action:	Install a standpipe system at required locations in accordance with NFPA 14,designed by a qualified fire protection engineer and institute an inspection, testing and maintenance program for the system in accordance with NFPA 25.	
Suggested Deadline Date:	11 Dec 2014	
Standard:	Reference NFPA 25 Chapter 6 Standpipe and Hose Systems Table 6.1.1.2	
Question:	Is signage for the standpipe system installed at required locations and on required components?	
Priority Level:	Low	

Non-Compliance Level:	2	
Description:	A NFPA-14 compliant standpipe system is not installed in the building. for the available standpipe system is not installed.	
Source of Findings:	Visual Assessment: No signage for standpipe system was found during site visit.	
Suggested Plan of Action:	Once a NFPA-14 compliant standpipe system is installed at required locations, designed by a qualified fire protection engineer, provide signage in compliance with NFPA 14 for the new system.	
Suggested Deadline Date:	07 Aug 2014	
Standard:	Reference NFPA 14 Chapter 6	
Question:	Standpipe system piping is free of mechanical damage, leakage, and corrosion?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	No damage, leakage or corrosion was found in the installed standpipe system piping.	
Source of Findings:	Visual Assessment: Existing class-II standpipe was found free of damage, leakage, and corrosion.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	NFPA 25 Chapter 6 Standpipe and Hose Systems	
Question:	Are fire department connections provided and clearly identified for the Fire Protection Systems?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	Fire department (Siamese) inlet connection and outlet connection (pillar hydrant) are provided as per clause 5.5.4. Connections are clearly identifiable. Connections match fire service and civil defense hose thread standard. Connections are clearly identifiable for the fire protection system.	
Source of Findings:	Visual Assessment: During site tour, fire department connections were found.	
Suggested Plan of Action:		
Suggested Deadline		

Date:		
Standard:	Alliance Standard Part 5 Section 5.5.4 Fire Department Connections	
Question:	Does the building have a fire pump?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	A fire pump set is available, however it does not comply with the requirements of Alliance Standards and NFPA requirements. Hydraulic calculation for installed standpipe is also not available. Therefore, required capacity of fire pump is not known. A suction lift is used whereas a suction head is required as per NFPA. Additionally, a detailed design of pump components and layout as per NFPA were not available.	
Source of Findings:	Visual Assessment: A pump dedicated for fire fighting was found in the factory premises.	
Suggested Plan of Action:	Have a qualified engineer review the pump capacity and ensure hydraulic calculation is done which can be supported by this pump in accordance with NFPA 20.. Also, identify all other performance data and ensure conformity to NFPA standards.	
Suggested Deadline Date:	23 Aug 2014	
Standard:	Alliance Standard Part 5 Fire Protection Systems	
Question:	Are inspection, maintenance, and testing procedures of the fire pump documented and up to date?	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	Inspection, maintenance, and testing procedures of the fire pump are not documented and up to date.	
Source of Findings:	Document Review: No document regarding inspection, maintenance and testing procedure of fire pump was found in the documents shown by the factory personnel.	
Suggested Plan of Action:	Install a pump dedicated for fire fighting or fire protection following NFPA requirements. Then establish an inspection, maintenance, and testing program for the fire pump in accordance with NFPA 20.	
Suggested Deadline Date:	11 Dec 2014	
Standard:	Reference NFPA 25 Chapter 8 Fire Pumps	

Question:	Are portable fire extinguishers installed throughout the building at required locations and mounted at the correct height?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	Portable extinguishers are installed within 100 ft travel distance and at 5 ft or 3.5 ft maximum height above floor.	
Source of Findings:	Visual Assessment: Spacing and height of portable extinguishers are measured on sample basis.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	BNBC Part 4 Section 4.10 and NFPA 10	
Question:	Portable fire extinguishers have been selected based on potential fire class and hazards?	
Priority Level:	Medium	
Non-Compliance Level:	1	
Description:	Portable fire extinguishers have not been placed according to potential fire class and hazards. CO2 extinguishers have been placed at most places of production area, storage area in place of ABC extinguisher.	
Source of Findings:	Visual Assessment: Fire extinguishers were not placed based on fire class.	
Suggested Plan of Action:	Select fire extinguishers based on potential fire class and hazards following NFPA 10 Chapter 5. Timber, Bamboo, coal, paints and similar combustible materials shall be kept separated from each other. A minimum of two dry chemical powder (DCP) type fire extinguishers shall be provided at both open and covered locations where combustible and flammable materials are stored as per clause 9.9. In a store of inflammable and/or fire-sensitive materials a 5 kg dry powder fire extinguisher conforming to accepted standards shall be kept at an easily accessible position.	
Suggested Deadline Date:	18 Sep 2014	
Standard:	NFPA 10 Chapter 5	
Question:	Fire extinguishers are inspected, tested, and maintained as required.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Extinguishers are inspected monthly by factory's concerned people. But no document was found in support of i) annual maintenance of extinguishers by a	

	servicing agent and ii) annual testing of nozzle of CO2 extinguisher. These are required as per NFPA 10.	
Source of Findings:	Document Review: No document regarding inspection, maintenance and testing procedure of fire extinguisher was found in the documents shown by the factory	
Suggested Plan of Action:	Fire extinguishers are to be inspected, tested, and maintained in accordance with requirements of NFPA 10. Prepare and maintain proper documentation of the inspection, testing, and maintainance of the fire extinguishers in accordance with NFPA 10.	
Suggested Deadline Date:	11 Dec 2014	
Standard:	NFPA 10 Chapter 7	
Question:	Are there any other fire suppression systems installed within the building?	
Priority Level:		
Non-Compliance Level:		
Description:	No other fire suppression system is available within the buildings.	
Source of Findings:	Visual Assessment: No other fire suppression system was found.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:		
Question:	Is the fire alarm and detection system monitored by a central station monitoring service or directly connected to the Fire Service and Civil Defense?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	An automatic fire alarm and detection system is available in the factory, but currently there is no monitoring company in Bangladesh. Fire service and civil defense is not capable of monitoring fire alarm and detection systems of the factories.	
Source of Findings:	Visual Assessment: Fire alarm and detection system not monitored centrally.	
Suggested Plan of Action:	Arrange for direct connection of the fire alarm system to a central monitoring station or Fire Service and Civil Defense as per Alliance Standard. Until that time that monitoring can be set up, arrange a monitoring system using factory's own central detection system and personnel. A person shall be assigned to contact the fire department in the event of fire alarm activation. An annunciator shall be located in a constantly attended location (such as a fire control room) to alert this person.	

Suggested Deadline Date:	24 Jul 2014	
Standard:	Alliance Standard Part 5 Section 5.7.5 Monitoring	
Question:	Trouble or alarm notifications were not indicated on the fire alarm control panel.	
Priority Level:	High	
Non-Compliance Level:		
Description:	Panel power, zone light (to address zone wise), fault light (if anything is disconnected) etc. on fire alarm control panel are functional.	
Source of Findings:	Visual Assessment: Centralized alarm and detection system was found in the factory premise.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 13 Section 13.10 Maintenance of Fire Protection Equipment	
Question:	Are notification and initiation devices for the fire alarm system installed at required locations based on occupancy type?	
Priority Level:	High	
Non-Compliance Level:	1	
Description:	No pull station was found at the exit discharge of both stairways. Smoke detectors were found sufficient in numbers.	
Source of Findings:	Visual Assessment: Pull stations were not found as required.	
Suggested Plan of Action:	Pull stations at egress points, smoke detectors in air handling equipment, visual and audible devices must be spaced appropriately based on occupancy type in accordance with NFPA 72 requirements.	
Suggested Deadline Date:	18 Sep 2014	
Standard:	Pull stations at egress points, smoke detectors in air handling equipment, visual and audible devices spaced appropriately based on occupancy type. Reference NFPA 72	
Means of Egress		
Question:	Occupant loads on each level (floor) do not exceed the capacity of the available means of egress.	
Priority Level:	High	

Non-Compliance Level:	3
Description:	On 3rd floor of Main building, occupant load is 490, which is maximum among all floors. The floor area is 1456 m2, so space per occupant is 2.97m2, which is more than required 2.3 m2 (25 sft) according to Alliance Standard Part 6 Section 6.4.2.1. But the total width of 2 stairs in the main building is 3.46m; total width requirement as per for 490 occupants on 3rd floor is 490X0.008=3.92m. So available stair width does not satisfy the requirement of Alliance Standard.
Source of Findings:	Visual Assessment: Widths of aisles, exit doors and stairs are measured on sample basis.
Suggested Plan of Action:	Satisfy total width requirement for stairways as per BNBC requirements and the Alliance Standard by reducing the occupant load on 3rd floor or provide another stair to satisfy the required width of stair.
Suggested Deadline Date:	01 Dec 2014
Standard:	Alliance Standard Part 6 Section 6.4 Occupant Load
Question:	Occupied roofs are provided with the minimum number of exits required as a story.
Priority Level:	High
Non-Compliance Level:	
Description:	Occupied roof is provided with 2 nos of exits. The number of means of egress from any floor or story shall not be less than 2 according to Alliance Standards Part 6 Section 6.6.1.
Source of Findings:	Visual Assessment: 2 nos exits were found at occupied roof.
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Alliance Standards Part 6 Section 6.6 Number of Means of Egress

Question:	All occupied roofs are provided with parapets or guards with a minimum height of 1067 mm (42 in.).	  
Priority Level:	Medium	
Non-Compliance Level:		
Description:	The roof is not occupied at all only automatic water purifier available on the roof.	
Source of Findings:	Visual Assessment: Roof is unoccupied.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 12 Handrails and Guards	
Question:	Occupant loads are posted for every assembly and production floor in a conspicuous space near the main point of egress.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Occupant loads are not posted in any assembly and production floor as demanded in Alliance Standard Part 6 Section 6.4.4.	
Source of Findings:	Visual Assessment: Occupant loads were not found posted at the required locations.	
Suggested Plan of Action:	Post the occupant load for every assembly and production floor in a facility in a conspicuous space near the main exit or exit access doorway for the space.	
Suggested Deadline Date:	24 Jul 2014	
Standard:	Alliance Standards Part 6 Section 6.4.4 Posting of Occupant Load	
Question:	Aisles are provided with the minimum unobstructed clear width of 0.9 m (36 in) based on occupant loads.	
Priority Level:	High	
Non-Compliance Level:		
Description:	The aisles satisfy the requirement of minimum width and total width for occupant load based on occupancy type as per Alliance Standard Part 6 Section 6.5.1 BNBC Part 4 Section 3.5.1.	

Source of Findings:	Visual Assessment: No obstruction found in aisles and from measurement and calculation, total width is found sufficient.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Higher occupancy loads will require a greater width to accommodate the increased load. Alliance Standard Part 6 Section 6.5 Egress Width	
Question:	The path of egress along the means of egress is not reduced at any point along the path of travel and is sufficient for the occupant load.	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	Highest occupant load is 490 on 3rd floor; total aisle width on 3rd floor is 5.91m; total required width of aisles is 2.45m. Available aisle width satisfies the requirement of Alliance Standard. Total width of 2 stairs in the main building is 3.46m; total width requirement for 490 occupants on 3rd floor is 490X0.008=3.92m. Available stair width does not satisfy the requirement of Alliance Standard. Total width of 2 exit doors in the main building is 3.23m; total exit width requirement for 490 occupants on 3rd floor is 490X0.004=1.96m. Available exit door width satisfies the requirement of Alliance Standard.	
Source of Findings:	Visual Assessment: Widths of aisles, exit doors and stairs are measured on sample basis.	
Suggested Plan of Action:	Satisfy total width requirement for stairways as per BNBC requirements and the Alliance Standard.	
Suggested Deadline Date:	18 Sep 2014	
Standard:	Alliance Standard Part 6 Section 6.5 Egress Width and BNBC Table 4.3.2	
Question:	Means of egress have a minimum ceiling height of 2.3 m (7 ft 6 in.) with projections from the ceiling not less than 2.03 m (6 ft 8 in.).	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	Means of egress of all the buildings high enough to meet minimum ceiling height requirement of 2.3 m.	
Source of Findings:	Visual Assessment: Ceiling height was measured on sample basis.	
Suggested Plan of Action:		
Suggested Deadline		

Date:		
Standard:	Alliance Standard Part 6 Section 6.3.3 Headroom	
Question:	Exit discharge is directly to the exterior of the building, unless the requirements of 6.17.2 are met, at grade or provides direct access to grade. Exit discharge shall not reenter a building.	
Priority Level:	High	
Non-Compliance Level:		
Description:	Exit discharges are directly to the exterior of the building and do not reenter a building.	
Source of Findings:	Visual Assessment: On visual inspection, it was observed that exit discharge meets the exterior of the building.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.17 Exit Discharge. See Section 16.7.2 and 16.7.3 for exceptions.	
Question:	Travel distance to reach an exit does not exceed the maximum distance allowed by Occupancy Type.	
Priority Level:	High	
Non-Compliance Level:		
Description:	Maximum travel distance to exit is within 45m. Standpipe system is not provided in accordance with Alliance Standard. Yet, travel distance does not exceed the allowable limit 45m set by Alliance Standard Part 6 Section 13 and BNBC Part 4 Section 3.15.1.	
Source of Findings:	Visual Assessment: Travel distances are measured on sample basis.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 13 Travel Distance and BNBC Part 4 Section 3.15.1	

Question:	Exit access corridors serving an occupant load exceeding 30 are separated by walls having a fire-resistance rating of 1 hr.	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Corridors on 2nd to 5th floor that serve the production area, office and storage area are not protected by 1 hour fire-resistance construction. On one side of the corridor there is a steel net which is not capable of providing required fire separation as per the Alliance Standard.	
Source of Findings:	Visual Assessment: Exit access corridors were found without fire separation.	
Suggested Plan of Action:	Provide fire-resistive rated assemblies at the required exit access corridors. The rated assembly should be approved and designed by a qualified fire protection engineer. Exit access corridors serving an occupant load exceeding 30 are to be separated by walls having a fire resistance rating of 1 hr unless provided with automatic sprinkler protection throughout the story or building.	
Suggested Deadline Date:	18 Sep 2014	
Standard:	Alliance Standard Part 6 Section 6.3 and Part 4 Section 4.5. Does not apply if an automatic sprinkler system is installed throughout the building.	
Question:	Interior finishes for means of egress meet the rating requirements for Class A, B and C materials.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	The interior finishes for the means of egress are of homogeneous tiles, plaster and non-combustible paint. However, no document proving the class of interior finishes as per NFPA 101 is available.	
Source of Findings:	Visual Assessment: During site tour, interior finishes for means of egress are observed.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.3.2 Interior Finish	
Question:	Exits are limited to Class A and Class B interior materials.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	Exits are made of brick walls. However, no document proving the class of interior materials of exits as per NFPA 101 is available.	

Source of Findings:	Visual Assessment: During site tour, interior materials for exits are observed.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.3.2 Interior Finish	
Question:	The number of means of egress from any floor or story is not less than 2 except where a single exit is permitted or where a greater number is required.	
Priority Level:	High	
Non-Compliance Level:		
Description:	In the main building the number of means of egress from any floor is 2. In other buildings also, number of means of egress is not less than that required.	
Source of Findings:	Visual Assessment: During site tour, number of emergency exit doors were counted	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.6 Number of Means of Egress	
Question:	The number of means of egress from any floor or story is not less than 3 when the occupant load exceeds 500 per story and not less than 4 when the occupant load exceeds 1000 per story.	
Priority Level:	High	
Non-Compliance Level:		
Description:	There is no floor or story with over 500 occupants.	
Source of Findings:	Visual Assessment: During site tour, occupant load was checked	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.6 Number of Means of Egress	

Question:	All paths of egress are provided with compliant means of illumination.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	Aisles, exit access corridors and staircases are provided with compliant means of illumination.	
Source of Findings:	Visual Assessment: Aisles,Exit access corridors,Exit doors and Stairways were found sufficiently illuminated while auditing.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 6 Section 6.7 Egress Illumination and Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape	
Question:	Means of egress are free from impediments, obstructions, and stored materials.	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	Some finished goods are stored beside corridor on 1st and 2nd floor of main building. In the aisles on 5th floor, some finished packets are also piled up. These findings violate the Alliance Standard.	
Source of Findings:	Visual Assessment: Finished goods were found to be stored at aisles or corridors in different floors of main building.	
Suggested Plan of Action:	Keep means of egress continuously free and clear of all obstructions or impediments to full instant use in the case of fire or other emergency.	
Suggested Deadline Date:	26 Jun 2014	
Standard:	Alliance Standard Part 6 Section 6.3.8 Impediments to means of egress and Section 6.3.9 Reliability	
Question:	Emergency power for means of egress illumination is verified at least once per year. If battery operated lights are used, these lights are tested on a monthly basis. Functional testing of battery powered lights is provided for a minimum 90 min once per year.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Record of verifying emergency power for means of egress illumination was not found which is required as per Alliance Standards.	

Source of Findings:	Document Review: No document regarding verification of emergency power for means of egress was found among the documents shown by the factory personnel.	
Suggested Plan of Action:	Develop a testing and maintenance program that ensures the emergency power for all egress lighting is verified at least once per year. If battery-operated lights are used, these lights shall be tested on a monthly basis. Functional testing of battery powered lights shall be provided for a minimum 90 min once per year.	
Suggested Deadline Date:	24 Jul 2014	
Standard:	Alliance Standards Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape Lighting	
Question:	Doors are not locked in the direction of egress under any conditions. All hasps, locks, slide bolts, and other locking devices have been removed where required.	
Priority Level:	High	
Non-Compliance Level:		
Description:	Exit doors are outward swinging. Some of the doors have locking provision from ingress (stair) side, but panic bar is installed on those doors, so this issue can be waived as per Alliance Standard 6.8.2.3.	
Source of Findings:	Visual Assessment: Locking arrangement from ingress side was found at some of the exit doors.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
Question:	Doors along the path of egress have a minimum width of 0.8 m (32 in) and have required ratings.	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Door widths are more than 0.8m. Some of the doors appear to be fire doors. However, no credible certificate is available. Fire doors of proper rating are required in accordance with Alliance Standards.	
Source of Findings:	Document Review: No credible certificate for the exit doors were found.	
Suggested Plan of Action:	Replace non-compliant doors and frames in the means of egress with side-swinging doors. Replacement doors shall be a minimum width of 0.8 m (32 in), and are listed, approved, self-closing, fire rated door assemblies (door and frame) with latching panic hardware.	

Suggested Deadline Date:	18 Sep 2014	
Standard:	Alliance Standard Part 6 Section 6.5.6 Minimum Widths. Increased occupant loads will require a door width greater than 0.8 m.	
Question:	All doors in a means of egress are of the side-hinged swinging type.	
Priority Level:	High	
Non-Compliance Level:		
Description:	All doors were found to be side-hinged swinging type.	
Source of Findings:	Visual Assessment: During site tour, it was observed that exit doors were side-hinged swinging type.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
Question:	Illuminated exit signs are placed at entrances to exits and along the path of egress anywhere the continuation of egress is not obvious or there is a change in the direction of the path of travel.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	Illuminated exit signs are placed at required locations as demanded in Alliance Standard Part 6 Section 6.11.	
Source of Findings:	Visual Assessment: During site visit, the illumination level and locations of exit signs were observed.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.11 Exit Signs	
Question:	Changes in elevation of walking surfaces do not exceed 6.35 mm (1/4 in) unless provided with a beveled slope of 1 in 2 that does not exceed 12.7 mm (1/2 in).	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Changes in elevation at east side stair exit doors on 2nd, 3rd, and 4th floors	

	exceed 50 mm, which is not allowed according to Alliance Standards.
Source of Findings:	Visual Assessment: Change in elevation of walking surfaces was observed.
Suggested Plan of Action:	Provide a uniform slope/ramp for the walking surface. Slope should not exceed 1 in 20 in the direction of travel. Any changes in elevation (protrusions or lips) must not exceed 1/4 in.
Suggested Deadline Date:	11 Dec 2014
Standard:	Alliance Standard Part 6 Section 6.3.4 Walking Surfaces
Question:	Illuminated exit signs are provided with battery backup or emergency power and are continuously illuminated.
Priority Level:	Medium
Non-Compliance Level:	
Description:	Illuminated exit signs are provided with generator backup for continuous illumination.
Source of Findings:	Visual Assessment: Generator backup for illuminated exit signs was found during site visit.
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Alliance Standards Part 6 Section 6.11 Exit Signs and Part 10 Section 10.12 Illumination of Exit Signs and Means of Escape
Question:	Emergency power for exit signs is tested at least once per year. If battery operated, these lights are tested on a monthly basis. Functional testing of battery powered signs is provided for a minimum 90 min once per year.
Priority Level:	Medium
Non-Compliance Level:	2
Description:	No record of testing emergency power for exit signs was found as required.
Source of Findings:	Document Review: No document regarding testing of emergency power for exit signs was found among the documents shown by the factory personnel.
Suggested Plan of Action:	Develop a testing and maintenance program that ensures the emergency power for exit signs is verified at least once per year. If battery-operated signs are used, these signs shall be tested on a monthly basis. Functional testing of battery powered signs shall be provided for a minimum 90 min once per year.
Suggested Deadline Date:	24 Jul 2014

Standard:	Alliance Standard Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape.	
Question:	Exit signs have appropriate illumination levels and contrasting graphics.	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	Some exit signs do not have appropriate illumination levels and contrasting graphics as per the Alliance Standard.	
Source of Findings:	Visual Assessment: Illumination levels of exit signs were observed during site visit.	
Suggested Plan of Action:	Make sure all required exit signs are illuminated continuously at all times. Exit signs may be illuminated either by lamps external to the sign or by lamps contained within the sign. The source of illumination shall provide not less than 50 lux at the illuminated surface with a contrast of not less than 0.5. Approved self-luminous signs which provide evenly illuminated letters having a minimum luminance of 0.2cd/m2 may also be used.	
Suggested Deadline Date:	11 Dec 2014	
Standard:	Alliance Standard Part 10 Section 10.12.1 Exit Signs	
Question:	Walking surfaces along the path of egress are uniformly slip resistant.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	Walking surfaces along the path of egress are of homogenous tiles, net cement finish. These will not cause slip during quick evacuation under emergency situation.	
Source of Findings:	Visual Assessment: Walking surfaces along the path of egress were observed.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.3.6 Slip Resistance	
Question:	Stairs are constructed of noncombustible materials.	
Priority Level:	Low	
Non-Compliance Level:		
Description:	All the stairs of all buildings are made of concrete.	
Source of Findings:	Visual Assessment: Construction materials of stairs were observed.	

Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.9 Stairs	
Question:	Stairs have a minimum width of 0.9 m (35 in.).	
Priority Level:	High	
Non-Compliance Level:		
Description:	All the stairs are wider than 0.9m.	
Source of Findings:	Visual Assessment: Stair width was measured during site visit.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.5 Egress Width. Applies to existing construction.	
Question:	Stair treads are of nominal uniformity.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	Stair treads and risers are of nominal uniformity.	
Source of Findings:	Visual Assessment: Stair treads and risers were measured.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 6 Section 6.9 Stairs. Any tread height exceeding more than 50% of the adjacent tread heights or 75 mm (3 in.), whichever is less, shall be modified to be within this tolerance	

Question:	Landings are provided on both sides of doors used along the path of egress. Doors do not swing out over stairs.	
Priority Level:	High	
Non-Compliance Level:		
Description:	Landings are provided on both sides of doors. Landings are sufficiently wide such that doors do not swing out over stairs	
Source of Findings:	Visual Assessment: Landings were found on both sides of doors.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
Question:	Landings are provided with the same width in the direction of egress travel as the stair clear width provided at each level and at intermediate landings. Existing landings that are less than the stair width, shall reduce the overall available capacity of the stair.	
Priority Level:	High	
Non-Compliance Level:		
Description:	Landings are of same or more width in the direction of egress as the stair width.	
Source of Findings:	Visual Assessment: Landing width was measured.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.9 Stairs and Section 6.5	
Question:	Handrails are provided on both sides of each stairway. Intermediate handrails are provided when the stair width exceeds 2.2 m (87 in.). Handrails are not mounted lower than 760 mm (30 in.) or higher than 1100 mm (44 in.).	
Priority Level:	Medium	
Non-Compliance Level:	2	

Description:	Handrails were found at one side of both staircases in the main building and no handrail was found in the stair of sub-station building. No stair is available in other ancillary sheds.	
Source of Findings:	Visual Assessment: Handrails were not provided on both sides of stairways.	
Suggested Plan of Action:	Provide handrails on both side of each stairway. Provide handrail of height between the range 865 mm (34 in.) and 965 mm (38 in.) as per the Alliance Standard.	
Suggested Deadline Date:	11 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.9 Stairs and 6.12 Handrails and Guards	
Question:	Every door in a stair enclosure serving more than 5 stories is provided with re-entry unless it meets the requirements of Alliance Standards Part 6 Section 6.8.3.1.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	The main building has 8 stories, re-entry provision is provided at exit doors of all floors. The buildings other than the main building have less than 6 stories, therefore re-entry is not required for those buildings	
Source of Findings:	Visual Assessment: Re-entry provision was found at exit doors.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
Question:	Exterior exit stairs are separated from the building with the required rating. The rating of the exterior wall shall extend 3.05 m (10 ft) beyond the ends of the stair structure.	
Priority Level:	High	
Non-Compliance Level:		
Description:	No exterior exit stair available.	
Source of Findings:	Visual Assessment: No exterior stair was found.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.3.1.2. Three stories or less 1-hr rating. Four	

	stories of more 2-hr rating	
Question:	Interior exit stairways and ramps terminate at an exit discharge except where terminating at a rated exit passageway.	
Priority Level:	High	
Non-Compliance Level:		
Description:	Interior exit stairways terminate at exit discharge.	
Source of Findings:	Visual Assessment: All interior exit stairways terminated at exit discharge and the exit discharge was open to sky.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.14 Exit Enclosures	
Question:	Stair designation signs are provided at each floor entrance from the stair to the floor in English and Bengali. Signs indicate the name of the stair and the floor level. Signs are posted adjacent to the door.	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	Floor level mentioned but stair name or designation is not mentioned.	
Source of Findings:	Visual Assessment: No stair name or designation was found.	
Suggested Plan of Action:	Install signage adjacent to each stair door indicating the stair name at the noted locations in both Bengali and English.	
Suggested Deadline Date:	24 Jul 2014	
Standard:	Alliance Standard Part 6 Section 6.9 Stairs	
Question:	Stairwells are not utilized as storage spaces.	
Priority Level:	High	
Non-Compliance Level:		
Description:	Stairwells are free from storage.	
Source of Findings:	Visual Assessment: No storage was found at stairwells.	
Suggested Plan of Action:		
Suggested Deadline		

Date:		
Standard:	Alliance Standard Part 13 Section 13.9 Safety Inspections	
Question:	Ramps used in a means of egress do not reduce the overall means of egress width. The minimum width shall be 1.1 m (44 in.).	
Priority Level:	High	
Non-Compliance Level:		
Description:	No such ramp in the means of egresses is available.	
Source of Findings:	Visual Assessment: No such ramp was found.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 6 Section 10 Ramps	
Question:	Ramps do not have a running slope greater than 1 in 8 (12.5 percent) and have handrails on both sides of the ramp.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	No such ramp in the means of egresses is available.	
Source of Findings:	Visual Assessment: No such ramp was found.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 10 Ramps	
Fire Safety Programs		
Question:	A Fire Safety Director position has been filled.	
Priority Level:	Low	
Non-Compliance Level:	3	
Description:	No viable documentation or physical presence of Fire Safety Director was noted.	
Source of Findings:	Document Review: No documents regarding the appointment of fire safety director was found.	

Suggested Plan of Action:	Create a Fire Safety Director position and fill the position with an individual that has had sufficient training to be able to carry the required duties. The duties of the Fire Safety Director shall include the following: (1) Establish internal and external rally points and communicate to all employees in the building. (2) Fire department pre-planning. (3) Conduct safety inspections as outlined in Alliance Standard. (4) Ensure all testing of fire protection equipment is conducted in accordance with Alliance Standard.	
Suggested Deadline Date:	11 Dec 2014	
Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director	
Question:	An emergency evacuation plan has been developed and communicated to all employees.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Workers are aware of the evacuation procedure upon commencing of the alarm. However, no procedure defining evacuation process was available.	
Source of Findings:	Worker Interviews: Among the documents shown by the factory personnel, no proper emergency evacuation plan was found.	
Suggested Plan of Action:	Develop an emergency evacuation plan which includes duties and responsibilities of various people/groups, interfacing between groups and fire brigade, headcount and identification of trapped victims, physically disabled people and their rescue, etc. and all components required by the Alliance Standards and communicate the plan to all employees. The evacuation plan shall include provisions to assist physically disabled persons. A list of all employees with physical disabilities shall be kept by the Fire Service Director.	
Suggested Deadline Date:	24 Jul 2014	
Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director	
Question:	Emergency egress maps are posted at the entrance to each exit stair or main point of egress.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	Emergency egress maps are posted at the entrance to exit stairs.	
Source of Findings:	Visual Assessment: Emergency egress maps were found at required locations.	
Suggested Plan of Action:		
Suggested Deadline Date:		

Standard:	Alliance Standards Part 13 Section 13.4 Evacuation Plan	
Question:	Fire Department pre-planning has been completed.	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	Fire department pre-planning was not found.	
Source of Findings:	Document Review: No document regarding fire department pre-planning has been found among the documents shown by factory personnel.	
Suggested Plan of Action:	Complete fire department pre-planning activities with the local Fire Service and Civil Defense	
Suggested Deadline Date:	24 Jul 2014	
Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director	
Question:	Fire Drills are conducted at required intervals based on building use type.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Fire drills are conducted monthly in all buildings but not under the direction of a Fire Safety Director. This does not meet the requirements of Alliance Standards.	
Source of Findings:	Document Review: Fire drill documents have been found but not as per Alliance Standard.	
Suggested Plan of Action:	Fire drills shall be conducted under the direction of a Fire Safety Director. All other requirements for fire drills shall be conducted in accordance with BNBC requirements.	
Suggested Deadline Date:	11 Dec 2014	
Standard:	Alliance Standards Part 13 Section 13.3 Fire Drills	
Question:	Are the required number of people trained and certified in fire fighting, first aid, and rescue training by the appropriate authority.	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Document or certificate by appropriate authority for training on fire fighting, first aid and rescue is not available. The factory authority claims that some of their workers have been trained.	
Source of Findings:	Document Review: No document regarding fire training has been found among the documents shown by factory personnel.	

Suggested Plan of Action:	Train and certify at least 25 percent of workers in fire fighting, first aid and rescue by the proper authority and pursue for issuance of the training certificate from the authority.	
Suggested Deadline Date:	11 Dec 2014	
Standard:	Alliance Standard Part 13 Human Element Programs	
Question:	A written housekeeping policy is established and enforced.	
Priority Level:	Low	
Non-Compliance Level:		
Description:	Written housekeeping policy was found as demanded in Alliance Standards Part 13 Section 13.6.	
Source of Findings:	Document Review: Documents regarding housekeeping policy have been found among the documents shown by the factory personnel.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 13 Section 13.6 Housekeeping	
Question:	A hot-work permit program has been established.	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	Hot work permit program is not established yet. It is required as per Alliance Standards Part 13 Section 13.4.	
Source of Findings:	Document Review: No hot work permit could be presented by the factory personnel	
Suggested Plan of Action:	Develop a hot work permit program. The program must comply with the requirements of NFPA 51B. In general, this program should address process of request and approval authorities, necessary checks prior approval, standby fire watch and fire fighting equipment, sounding of alarm procedure, duration and expiry of permit and reapproval procedure etc.	
Suggested Deadline Date:	11 Dec 2014	
Standard:	Alliance Standards Part 13 Section 13.4 Hot Work Permit and NFPA 51B	

Question:	Storage areas underneath the cutting tables are clear of combustibles.	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	Fabrics are stored underneath the cutting tables of cutting section on 1st floor.	
Source of Findings:	Visual Assessment: Combustibles were found underneath the cutting tables.	
Suggested Plan of Action:	Remove all combustibles stored underneath the cutting tables at the noted locations.	
Suggested Deadline Date:	25 Jul 2014	
Standard:	Alliance Standard Part 17 Section 13.7.2 Cutting tables.	
Question:	Training programs are implemented and documented in accordance with the Alliance Safety Training Curriculum.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	No document of any training program in accordance with the Alliance Safety Training Curriculum was found.	
Source of Findings:	Document Review: Alliance Safety Training Curriculum was not found among the documents shown by factory personnel.	
Suggested Plan of Action:	Impart training in accordance with Alliance Safety Training Curriculum and keep record with proper documentation.	
Suggested Deadline Date:	24 Jul 2014	
Standard:	Alliance Standards Part 13	
Question:	Smoking is only allowed at designated areas.	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	Smoking is prohibited as per verbal information of factory personnel, but signs are not posted in Bengali and English at all building entrances. No designated smoking area is created outside the buildings. These steps are required as per Alliance Standard Part 13 Section 13.5.	
Source of Findings:	Visual Assessment: During site tour no designated area for smoking was noticed.	
Suggested Plan of Action:	Smoking shall be prohibited in any garment factory building, separate storage building, or any building or area where the Inspector of the Factories Rules (1.6.3.7) Part 53 requires that smoking be prohibited. If an Owner creates a	

	designated smoking area outside the buildings, information on the location of these designated areas shall be posted on the signs required in 13.5.2	
Suggested Deadline Date:	10 Jul 2014	
Standard:	Alliance Standards Part 13 Section 13.5 Smoking	
Question:	Are all applicable permits up to date including Fire License & Boiler License.	 
Priority Level:	Low	
Non-Compliance Level:		
Description:	All applicable permits and licenses are valid and up to date.	
Source of Findings:	Document Review: All applicable permits were found up to date.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 13 Human Element Programs	
Question:	Are there additional areas of non-compliance to report?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Two rooms on 2nd floor of substation building were fully sealed and inaccessible.	
Source of Findings:	Visual Assessment: Two rooms in the sub-station building were found inaccessible.	
Suggested Plan of Action:	Remove all hasps, locks, slide bolts, or other locking devices at the noted locations.	
Suggested Deadline Date:	15 Oct 2014	
Standard:	Not Applicable	