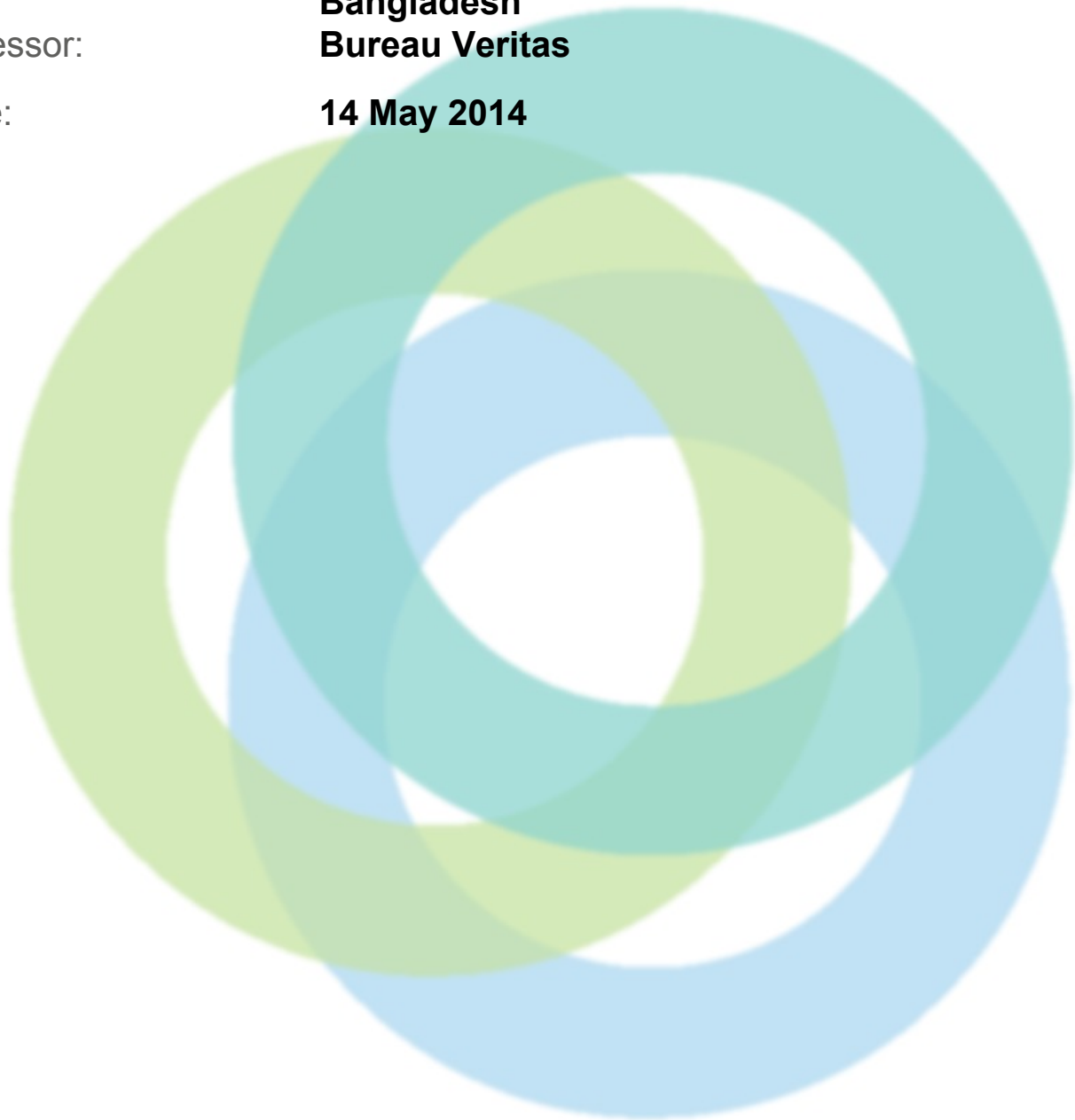


# INITIAL FIRE ASSESSMENT REPORT (FAR)

Factory Name: **Knit & Knitex (PVT) Ltd**  
Address: **Soydana, Dagerchala Road, National University,  
Joydebpur, Gazipur Joydebpur, Gazipur Dhaka  
Bangladesh**  
Assessor: **Bureau Veritas**  
Date: **14 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](http://www.bangladeshworkersafety.org).



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**ALLIANCE**  
FOR BANGLADESH WORKER SAFETY

## GENERAL INFORMATION

### General Information

Factory Name:	Knit & Knitex (PVT) Ltd
Address:	Soydana, Dagerchala Road, National University, Joydebpur, Gazipur Joydebpur, Gazipur Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Joydebpur, Gazipur
Zip Code:	
Audit Duration:	1 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	05-21-2014
Final Report Date:	06-24-2014
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	There are 6 buildings in the factory premises out of which one is six story main building and five are ancillary buildings. The buildings are named as: 1) Six story main building, 2) Single story generator shed, 3) Single story dining and Medical shed, 4) Single story boiler shed, 5) Single story wastage store, 6) Single story Kitchen shed.
Is the building(s) owned or rented by the Factory:	Rented
Number of Building Levels (Stories):	Information provided below as per following format: Highest occupied floor level [Height up to roof], Stories above grade, Stories below grade, Occupied level. 1) Six story main building: 15.85 m or 52 ft [18.90 m or 62 ft], 6, 0, 6. 2) Single story generator shed: 15 cm or 0.50 ft above grade [3.05 m or 10 ft], 1, 0, 1. 3) Single story dining and Medical shed: 15 cm or 0.50 ft above grade [3.05 m or 10 ft], 1, 0, 1. 4) Single story boiler Shed: 15 cm or 0.50 ft above grade [3.05 m or 10 ft], 1, 0, 1. 5) Single story wastage store: 15 cm or 0.50 ft above grade [3.05 m or 10 ft], 1, 0, 1. 6) Single story Kitchen shed: 15 cm or 0.50 ft above grade [2.44 m or 8 ft], 1, 0, 1.
Approximate Building Area (SF):	Total area of buildings in the factory premises: 67963.32 sft. Building wise breakdown as follows: 1) Six story main building: 66000 sft (Ground Floor: 11000 sft, 1st Floor: 11000 sft, 2nd Floor: 11000 sft, 3rd Floor: 11000 sft, 4th Floor: 11000 sft, 5th Floor: 11000 sft), 2) Single story generator shed: 528.00 sft, 3) Single story dining and Medical shed: 1198.81 sft, 4) Single story boiler Shed: 86.51 sft, 5) Single story wastage store: 100 sft, 6) Single story Kitchen shed: 50 sft.
Date of Building Construction:	Factory personnel informed the date of construction as follows: 1) Six story main building: Ground floor to 4th floor finished in: December-2009. Rest of the stories are under construction.




Date of Last Building Renovation/Addition:	1) Six story main building: 5th floor under construction.
Ancillary Structures in Complex:	1) Single story generator shed, 2) Single story dining and Medical shed, 3) Single story boiler Shed, 4) Single story wastage store, 5) Single story Kitchen shed.
Approximate Ancillary Structures Area (SF):	1) Single story generator shed: 528.00 sft, 2) Single story dining and Medical shed: 1198.81 sft, 3) Single story boiler Shed: 86.51 sft, 4) Single story wastage store: 100 sft, 5) Single story Kitchen shed: 50 sft.
Number of Occupants:	Total number of occupants: 923. 1) Six story main building: (Ground floor: 140, 1st floor: 220, 2nd floor: 80, 3rd floor: 220, 4th floor: 260, 5th floor: Under construction), 2) Single story generator shed: 1, 3) Single story dining and Medical shed: 1, 4) Single story boiler Shed: 1, 5) Single story wastage store: 0, 6) Single story Kitchen shed: 0.
Number of Ancillary Levels (Stories):	Information provided below as per following format: Highest occupied floor level [Height up to roof], Stories above grade, Stories below grade, Occupied level. 1) Single story generator shed: 15 cm or 0.50 ft above grade [3.05 m or 10 ft], 1, 0, 1. 2) Single story dining and Medical shed: 15 cm or 0.50 ft above grade [3.05 m or 10 ft], 1, 0, 1. 3) Single story boiler Shed: 15 cm or 0.50 ft above grade [3.05 m or 10 ft], 1, 0, 1. 4) Single story wastage store: 15 cm or 0.50 ft above grade [3.05 m or 10 ft], 1, 0, 1. 5) Single story Kitchen shed: 15 cm or 0.50 ft above grade [2.44 m or 8 ft], 1, 0, 1.
Occupancy Type:	1) Six story main building: [Ground floor: G2 (Inspection, Lab Room & Finishing), H2 (Fabric & Accessories store), 1st floor: G2 (Sewing section), K1 (Maintenance), F1 (Office), 2nd floor: G2 (Cutting, Sample section), H2 (Fabric Store), 3rd floor: G2 (Sewing section), 4th floor: G2 (Sewing section), 5th floor: Under construction], 2) Single story generator shed: K1 (Generator), 3) Single story dining and Medical shed: E4 (Dining), D1 (Doctor), B2 (Childcare), 4) Single story boiler Shed: K1 (Boiler), 5) Single story wastage store: H2 (Wastage storage), 6) Single story Kitchen shed: J1 (Kitchen with gas burner).
Construction Type:	1) Six story main building: Type 1, 2) Single story generator shed: Non-rated, 3) Single story dining and Medical shed: Non-rated, 4) Single story boiler Shed: Non-rated, 5) Single story wastage store: Non-rated, 6) Single story Kitchen shed: Non-rated.
Height of Highest Occupied Floor Level Above Grade:	1) Six story main building: 15.85 m or 52 ft, 2) Single story generator shed: 15 cm or 0.50 ft above grade, 3) Single story dining and Medical shed: 15 cm or 0.50 ft above grade, 4) Single story boiler Shed: 15 cm or 0.50 ft above grade, 5) Single story wastage store: 15 cm or 0.50 ft above grade, 6) Single story Kitchen shed: 15 cm or 0.50 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 Certificates of Occupancy were found.	
Source of Findings:	Document Review: No occupancy certificate was found.	
Suggested Plan of Action:	Apply to Rajuk for issuance of occupancy certificate and pursue the matter to expedite.	
Suggested Deadline Date:	01 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 main building building. But all ancillary sheds are non rated.	
Source of Findings:		
Suggested Plan of Action:	Insulate the steel structure with asbestos or coat with fire resisting paint.	
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:	The wall of the stairs on 4th and 5th floor has glass partitions in the main building. Such unprotected openings do not comply with Alliance Standard. Such openings need to be protected with 1.5 hr fire protective opening assemblies.	

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Source of Findings:	Visual Assessment: Opening through rated wall was found unprotected.
Suggested Plan of Action:	Close all windows and other openings on all the fire rated wall across the entire premises Or provide fire-resistive rated opening protectives.
Suggested Deadline Date:	15 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:	2
Description:	From physical measurement, slab thickness was found to be 7.5 in with finishing, which is capable of providing approximately 3.5 hour fire resistance. According to BNBC and Alliance Standard, slabs for a Type 1 building need to have 3 hour fire rating. 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 to have a required fire rating to separate the floors. On the 1st floor, there was a penetration in the ceiling where electrical wires pass and the penetration is not sealed with fire resistive materials.
Source of Findings:	Visual Assessment: Penetration was found on roof of 1st floor.
Suggested Plan of Action:	Protect the penetrations of fire resistive rated assemblies with a listed penetration firestop system tested in accordance with ASTM E814.
Suggested Deadline Date:	15 Sep 2014
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:	3
Description:	1. On 2nd floor there are shutter doors between fabric store and sample section. Stores need to be fire separated according to Alliance Standard. 2. At dining and medical shed - (i) Dining is adjacent to child care, (ii) Dining is adjacent to doctor's room, (iii) Childcare is adjacent to doctor's room, (iv) Childcare is placed adjacent to kitchen. All these occupancies need to be fire separated. The kitchen or gas connection needs to be removed from factory premises. 3. Boiler room adjacent to production building is not fire rated. This boiler room shall be separated from other occupancies by a minimum 1 hour construction.
Source of Findings:	Visual Assessment: Storage, Childcare, kitchen and Boiler room is not fire rated which is adjacent to production building.
Suggested Plan of Action:	Provide fire-resistive rated construction barriers between hazard types following Table 4.4.1 of Alliance Standard or Table 4.1.1 from BNBC Part 4. Consult a qualified fire protection engineer to design the required rated construction barrier.
Suggested Deadline Date:	08 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:	Fire doors are installed on every floor. The doors appear to be fire doors but no credible certificate was found. There are 2 stairs in the main building. At the landing between the 4th and 5th floor the stair wall is covered with a glass partition which is not a fire resistive rated construction barrier. There are glass ventilators in the enclosure as well. The walls of the exit enclosure are not 2 hr fire rated as required. The doors on these stairs need to be 1.5 hour rated.
Source of Findings:	Visual Assessment: The walls of the exit enclosure are not 2 hr fire rated.
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 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:	15 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:		
Description:	No shaft available in the buildings except exit enclosure.	
Source of Findings:	Visual Assessment: No shaft available in the buildings.	
Suggested Plan of Action:		
Suggested Deadline Date:		
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:		
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 visit no atrium was found.	
Suggested Plan of Action:		
Suggested Deadline		



Date:	
Standard:	Reference Alliance Standards Section 3.7 Atrium
<b>Fire Protection Systems</b>	
Question:	Is the building protected by an automatic sprinkler system?
Priority Level:	High
Non-Compliance Level:	
Description:	Height of the highest occupied level of the main building is 52ft (15.85m). Other buildings and sheds are shorter than the main building. Since the aforementioned height is less than 23m or 75 ft, automatic sprinkler system is not required for any of these buildings as per Alliance Standard Section 5.3 and no sprinkler system is found in the main building including all ancillary buildings.
Source of Findings:	Visual Assessment: Height of the highest occupied level of the main building is 52ft (15.85m).
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:	
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:		
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:		
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 15.85m (52ft) above grade. A class III standpipe system needs to be installed throughout the building as the highest occupied floor level is more than 10 m (33ft) above grade. One class-II standpipe hose connection (40mm) is installed on each floor at stair with PVC pipe (vertical) and another connection of 25mm plastic hose is also available on each floor. So no standpipe system is available as per Alliance Standard.
Source of Findings:	Visual Assessment: One class-II standpipe hose connection (40mm) is installed on each floor at stairwell with PVC pipe (vertical) and another connection of 25mm plastic hose is also available.
Suggested Plan of Action:	Install a NFPA 14 compliant standpipe system at required locations designed by a qualified fire protection engineer. All standpipe system installations and hydraulic calculations shall be submitted for review by the Alliance for review prior to commencement of installation according to Alliance Standard. System design should also account for the 5th floor which is currently under construction. Testing of the installation shall be conducted in accordance with NFPA acceptance testing requirements. Documentation of all testing shall be submitted for review by the Alliance. Final inspection and testing of the installation shall be witnessed by the Alliance.
Suggested Deadline Date:	15 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:	1
Description:	Complete standpipe system was not installed. There is no test and maintenance plan or record for testing and no maintaining of the existing standpipe system as per NFPA.
Source of Findings:	Document Review: No document regarding inspection, maintenance and testing procedures for available standpipe and hose system was found among the documents shown by the factory personnel.
Suggested Plan of Action:	Install a class III standpipe system at required locations designed by a qualified fire protection engineer. The system is to be compliant with the requirements of NFPA 14. Then establish an inspection, maintenance, and testing program for the standpipe and hose system. Program must comply with NFPA 25 requirements.
Suggested Deadline	14 Dec 2014





Date:	
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:	Class III standpipe system is not installed in the building. Signage for the available class II standpipe system is not installed.
Source of Findings:	Visual Assessment: Signage for the existing standpipe system was not installed.
Suggested Plan of Action:	Install a NFPA 14 compliant standpipe system at required locations designed by a qualified fire protection engineer. Install required identification signs at the noted locations.
Suggested Deadline Date:	04 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:	Mechanical damage, leakage or corrosion was not found in the existing standpipe system.
Source of Findings:	Visual Assessment: During site visit no damage, leakage or corrosion was found in the existing standpipe system.
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:	3
Description:	Fire department connection is not provided to allow fire department pumper equipment to supplement the fire protection systems as required.





Source of Findings:	Visual Assessment: No fire department connection was found.
Suggested Plan of Action:	Fire department (Siamese) inlet connections shall be provided to allow fire department pumper equipment to supplement the fire protection systems. Fire department outlet connections shall be provided to allow fire department pumper vehicles to draw water from ground-level or underground water storage tanks. Connections shall match the Fire Service and Civil Defence hose thread standard.
Suggested Deadline Date:	08 Dec 2014
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 pump was available but the throw of jet at highest accessible point is 25 ft only. The pump is connected to an alternative power source without self-priming mechanism. Also, no approved design with hydraulic calculation was found as per NFPA 20.
Source of Findings:	Visual Assessment: A pump was shown as a fire pump which not comply with the requirement.
Suggested Plan of Action:	Install a dedicated fire pump for the facility in accordance with NFPA 20 to supply the demands of the connected fire protection systems along with a stored source of water sufficient to meet the demands in accordance with NFPA 22. Fire pump installation is to be tested for final acceptance in presence of Alliance and a final inspection of the installation shall be conducted by the Alliance prior to final acceptance of the installation by the Alliance as per clause 5.5.5. Acceptance testing of the installation shall be in accordance with NFPA 20, 22, and 25 testing requirements. Documentation of all testing shall be submitted to the Alliance for review prior to final acceptance by the Alliance.
Suggested Deadline Date:	15 Sep 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:	1
Description:	A proper fire pump is not installed. Inspection, maintenance, and testing procedures for the existing fire pump is not documented and up to date.
Source of Findings:	Document Review: No document regarding inspection, maintenance and testing procedure of existing 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 14 requirements. Also, establish an inspection, maintenance, and testing program for the fire pump in accordance with NFPA 25.	
Suggested Deadline Date:	08 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 4'-7" height above floor.	
Source of Findings:	Visual Assessment: Spacing and height of portable extinguishers are measured 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:		
Description:	Portable fire extinguishers have been placed according to potential fire class and hazards.	
Source of Findings:	Visual Assessment: During site visit extinguishers were found placed based on fire class.	
Suggested Plan of Action:		
Suggested Deadline Date:		
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, ii) annual testing of nozzle and iii) internal inspection of extinguishers at 5 year interval.
Source of Findings:	Document Review: During site visit no documents regarding annual inspection or maintenance of fire extinguishers was found.
Suggested Plan of Action:	Fire extinguishers are to be inspected, tested, and maintained in accordance with NFPA 10 Chapter 7 as demanded in Alliance Standard Part 13 Section 13.10.3. Prepare and maintain proper documentation.
Suggested Deadline Date:	08 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: During site visit no other fire suppression system was found within the buildings.
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: No such monitoring system was found.
Suggested Plan of Action:	Arrange for direct connection of the fire alarm system to a central monitoring station or Fire Service and Civil Defense. Until monitoring can be set up, 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:	21 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. are indicated on fire alarm control panel.
Source of Findings:	Visual Assessment: Panel power, zone light, fault light are indicated on fire alarm control panel.
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:	
Description:	Pull stations, smoke detectors, visual and audible devices are placed where required.
Source of Findings:	Visual Assessment: Notification and initiation devices for the fire alarm system installed at required locations.
Suggested Plan of Action:	
Suggested Deadline Date:	
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



Factory Name: Knit & Knitex (PVT) Ltd

Address: Soydana, Dagerchala Road, National University, Joydebpur, Gazipur  
Joydebpur, Gazipur Dhaka Bangladesh

Assessor: Bureau Veritas

Date: 14 May 2014



**ALLIANCE**  
FOR BANGLADESH WORKER SAFETY



## 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:	
Description:	<p>At the 4th floor of main building 260 workers are working at time of audit which is maximum among all floors. The area per person computed as 42.31 sft per occupant which is more than the required 25 sft according to Alliance Standard Part 6 Section 6.4.2.1. Total width of 2 stairs for each floor of the main building is 3.07m and the maximum number of occupants are in 4th floor. Total width requirement for 260 occupants in 4th floor is <math>260 \times 0.008 = 2.08\text{m}</math>. Other floors have the occupant load less than the 4th floor. So, total width requirement of stairs are also available for other floor. Total width of aisles and occupant load from 4th to ground floor of the main building are 4.75m, 4.42m, 4.36m, 4.42m, 4.42m and 140, 220, 80, 220, 260 respectively. The highest occupant load is 260 at 4th floor and total width of existing 5 aisles is 4.75m which is more than the required width of aisles as per requirement of 5mm per person, so <math>260 \times 0.005 = 1.3\text{m}</math>. Other floors have the occupant load less than the 4th floor and the required width of aisles from ground to 3rd floor are 0.7m, 1.1m, 0.4m and 1.1m respectively. So, total width requirement of aisles are also available for other floor. Total width of 2 exits for each floor of the main building is 2.97m and the maximum number of occupants are in 4th floor. The highest occupant load is 260 at 4th floor and total width of existing 2 exits is 2.97m which is more than the required width of exits as per requirement of 4mm per person, so <math>260 \times 0.004 = 1.04\text{m}</math>. Other floors have the occupant load less than the 4th floor. So, total width requirement of exits are also available for other floor.</p>
Source of Findings:	Visual Assessment: No of occupants was obtained from register. Widths of exit doors and stairs of the concerned floor were measured.
Suggested Plan of Action:	
Suggested Deadline Date:	
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:	Not applicable because roof is not occupied.
Source of Findings:	Visual Assessment: The roof is not occupied.
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:	Not applicable because roof is not occupied.
Source of Findings:	Visual Assessment: Roof is not occupied.
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 or production floor as required.
Source of Findings:	Visual Assessment: No occupant loads were found posted in any assembly or production floor near the main point of egress.
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:	21 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:	3
Description:	The clear width in aisles on 3rd and 4th floor of main building was found less than 0.9m which violates Alliance Standard.
Source of Findings:	Visual Assessment: Aisles width was found less than 0.9m on 3rd and 4th floor of main building.
Suggested Plan of Action:	Remove existing aisle markings and draw new markings to fulfill the minimum aisle width requirement. Relocate the machines accordingly if necessary.
Suggested Deadline Date:	15 Sep 2014
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:	3
Description:	The aisles on the 3rd and 4th floor are partially blocked by the columns, reducing the unobstructed aisle width to 0.83m, which violates the Alliance Standard. But total width of aisles is found sufficient for the occupant load. The highest occupant load is 260 at 4th floor and total width of existing 5 aisles is 4.75m which is more than the required width of aisles as per requirement of 5mm per person, so $260 \times 0.005 = 1.3\text{m}$ . Total width of 2 stairs on 4th floor in the main building is 3.07m. which has the maximum number of occupants. Total width requirement for 260 occupants on 4th floor is $260 \times 0.008 = 2.08\text{m}$ . Available stair width satisfies the requirement of Alliance Standard.
Source of Findings:	Visual Assessment: The path of egress along the means of egress is reduced at some points on 3rd and 4th floor along the path of travel.
Suggested Plan of Action:	Remove aisle markings and mark aisles again so that means of egress are not reduced by any permanent element such as columns and maintain the minimum 0.9m width.
Suggested Deadline Date:	15 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:	The minimum ceiling height along the means of egress is more than 2.3 m (7 ft 6 in.) and the minimum height at projection is more than 2.03 m (6 ft 8 in.).	
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 discharge is directly to the exterior of the building and does 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 for one exit is 42m. 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: During site visit maximum travel distance for one exit was measured as 42m.	
Suggested Plan of Action:		



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:		
Description:	No corridor available in the buildings.	
Source of Findings:	Visual Assessment: During site visit no such corridor was found in the buildings.	
Suggested Plan of Action:		
Suggested Deadline Date:		
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 finish of the means of egress is of brick, tiles, plaster and non-combustible paint.	
Source of Findings:	Visual Assessment: During site tour, interior finishes for means of egress were 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.	
Source of Findings:	Visual Assessment: During site tour, interior materials of 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 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 with occupant over 500 occupants.	
Source of Findings:	Visual Assessment: During site tour, number of occupant 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:	A stair on 3rd floor has a collapsible gate which obstructs and reduces the width of means of egress.	
Source of Findings:	Visual Assessment: Collapsible gate was found at stair on 3rd floor.	
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:	23 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 as required.	
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:	21 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:	2	
Description:	There are locking arrangements at the exit doors, but doors are not locked.	
Source of Findings:	Visual Assessment: Locking provision was found.	
Suggested Plan of Action:	Remove all hasps, locks, and slide bolts from all doors.	
Suggested Deadline Date:	07 Jun 2014	
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 and do not have required ratings. Some door appear to be fire doors, but no credible certificate was found.	
Source of Findings:	Visual Assessment: Certified fire door was not 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:	15 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:	1
Description:	Some of the doors in the means of egress are collapsible, which violates Alliance Standard.
Source of Findings:	Visual Assessment: Collapsible type doors are available at means of egress.
Suggested Plan of Action:	Replace all collapsible doors in the means of egresses with side-hinged swinging type doors of proper width and rating.
Suggested Deadline Date:	12 Sep 2014
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.
Source of Findings:	Visual Assessment: Illuminated exit signs were sufficient.
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:	The door panel bottom is elevated from floor level by 3.5in, which is not allowed according to Alliance Standard.
Source of Findings:	Visual Assessment: Door panel bottom was found elevated about 3.5in.
Suggested Plan of Action:	Repave the walking surface to make the slope of the surface 1 in 2 and keep change in elevation less than 1/2 inch.
Suggested Deadline	08 Dec 2014





Date:		
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 IPS backup for continuous illumination.	
Source of Findings:	Visual Assessment: During site tour the IPS backup for exit signs was checked.	
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 plan or record of conducting periodic tests of the emergency battery backup for illumination of 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 tested at least once per year. If battery operated signs are used, these signs are tested on a monthly basis. Functional testing of battery powered signs is provided for a minimum of 90 minutes once per year.	
Suggested Deadline Date:	21 Jun 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:	
Description:	Exit signs have appropriate illumination level and contrasting graphics as demanded in section 10.12.1.2 of Alliance Standard.
Source of Findings:	Visual Assessment: Exit signs were found with appropriate illumination level.
Suggested Plan of Action:	
Suggested Deadline Date:	
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, these tiles are not slippery and will not cause slip during quick evacuation under emergency situation.
Source of Findings:	Visual Assessment: Walking surfaces along the path of egress were slip resistant.
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: Stairs of all buildings were made of concrete.
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: During site visit all stairs were found sufficiently wide.
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: During site visit stair treads and risers were found of nominal uniformity.
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: During site visit 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: During site visit landings were found as same width as the stair width.	
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:	Both the stairs have handrails on only one side. The handrails are mounted between 33 to 35 in, which satisfies the requirements of Alliance Standard.	
Source of Findings:	Visual Assessment: Stairs have handrails on only one side.	
Suggested Plan of Action:	Provide handrails on both sides of each stairway.	
Suggested Deadline Date:	08 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 production building has 6 story and re-entry provision at doors is provided as required in Alliance Standards Part 6 Section 6.8.3. The structures 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 at door was provided.	
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 exit stair available.	
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:	All interior exit stairways terminate at exit discharge.	
Source of Findings:	Visual Assessment: During site visit it has been found that all exit stairways terminate at exit discharge.	



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:	1	
Description:	Floor level, stair name or designation are not mentioned.	
Source of Findings:	Visual Assessment: No floor level, stair name or designation was found.	
Suggested Plan of Action:	Install signage adjacent to each stair door indicating the stair name and the floor level at all the stairs in both English and Bengali.	
Suggested Deadline Date:	14 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: During site visit it has been found that stairwells are free from storage.	
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 available.	



Source of Findings:	Visual Assessment: No such ramp was found during audit.
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 available.
Source of Findings:	Visual Assessment: No ramp was found during audit.
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:	2
Description:	No viable documentation of Fire Safety Director was found, however a factory has informed that they have a designated person for fire related issues in addition to his original duty as manager (admin & compliance).
Source of Findings:	Visual Assessment: No viable documentation 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:	29 Nov 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:	1	
Description:	Workers were not fully aware of the evacuation procedure upon commencing of the alarm.	
Source of Findings:	Worker Interviews: No procedure defining evacuation process was available.	
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.	
Suggested Deadline Date:	12 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 near the entrance to exit stairs as demanded in Alliance Standard Part 13 Section 13.3.	
Source of Findings:	Visual Assessment: Emergency egress maps was found posted at required location.	
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:	1	
Description:	Fire department pre-planning was not found.	
Source of Findings:	Document Review: No fire department pre-planning was found.	
Suggested Plan of Action:	Complete fire department pre-planning activities with the local Fire Service and Civil Defense	



Suggested Deadline Date:	21 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 Standard.	
Source of Findings:	Visual Assessment: Fire drills were conducted but not under the direction of a Fire Safety Director.	
Suggested Plan of Action:	Fire drills are to be conducted on a quarterly basis as outlined in BNBC. 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.	
Suggested Deadline Date:	12 Jul 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:	2	
Description:	Record kept by the factory shows that 63 workers among the total 923 workers have been trained by BGMEA but no certificate had been issued till the day of audit.	
Source of Findings:	Visual Assessment: Record kept by the factory shows that 63 workers had been trained by BGMEA.	
Suggested Plan of Action:	Pursue for issuance of the training certificate from the authority. Train at least 25% of the workers in the building.	
Suggested Deadline Date:	08 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:	2	
Description:	No written housekeeping policy was found, which is required as per Alliance	



	Standards.
Source of Findings:	Document Review: No written housekeeping policy was presented by the factory personnel.
Suggested Plan of Action:	Establish written corporate policies on housekeeping to ensure scheduled cleaning for floor, wall, ceiling, supply. Promptly reschedule skipped cleanings. Provide a documented line of authority for authorizing a cleaning delay and rescheduling.
Suggested Deadline Date:	02 Mar 2015
Standard:	Alliance Standards Part 13 Section 13.6 Housekeeping
Question:	A hot-work permit program has been established.
Priority Level:	Low
Non-Compliance Level:	1
Description:	Hot-work involving welding, grinding, etc. is taking place in the premises, yet no hot-work permit program has been established, which is required as per Alliance Standards.
Source of Findings:	Document Review: No hot-work permit could be presented by the factory personnel
Suggested Plan of Action:	Develop a NFPA 51B compliant hot-work permit program. In general, this program should address process of request and approval of authorities, necessary checks prior to approval, standby fire watch and fire fighting equipment, sounding of alarm procedure, duration and expiry of permit and re-approval procedures, etc.
Suggested Deadline Date:	08 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:	2
Description:	Fabrics are stored underneath the cutting tables of the cutting section on the 2nd floor.
Source of Findings:	Visual Assessment: Fabrics stored underneath the cutting tables of cutting section on 2nd floor.
Suggested Plan of Action:	Remove all combustibles stored underneath the cutting tables at all locations.
Suggested Deadline Date:	24 Jun 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 found.	
Source of Findings:	Document Review: No document regarding any training program in accordance with the Alliance Safety Training Curriculum was found.	
Suggested Plan of Action:	Impart training in accordance with Alliance Safety Training Curriculum and keep record with proper documentation.	
Suggested Deadline Date:	21 Jul 2014	
Standard:	Alliance Standards Part 13	
Question:	Smoking is only allowed at designated areas.	
Priority Level:	Low	
Non-Compliance Level:		
Description:	Smoking is prohibited as per verbal information of factory personnel. Therefore, no designated smoking area is created outside the buildings.	
Source of Findings:	Visual Assessment: During site visit it has been found that smoking is strictly prohibited in the factory premises.	
Suggested Plan of Action:		
Suggested Deadline Date:		
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 up to date.	
Source of Findings:	Visual Assessment: Related document was 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:		
Description:	No remarkable non-compliance issues other than those presented before was found.	
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Not Applicable	