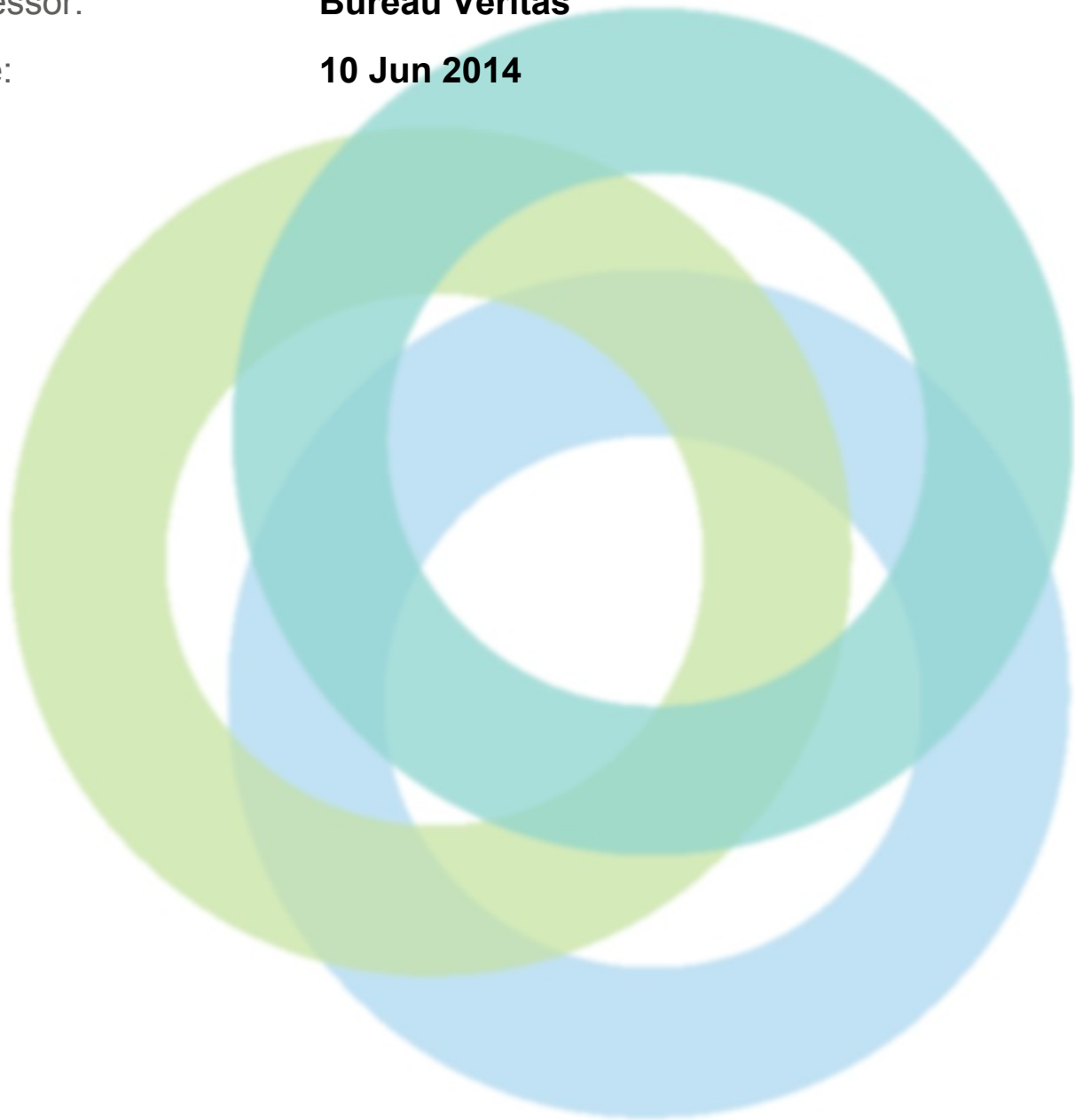


INITIAL FIRE ASSESSMENT REPORT (FAR)

Factory Name: **POLO COMPOSITE KNIT INDUSTRY LTD.**
Address: **226, Singair Road, Hemayetpur, Savar Savar Dhaka
Bangladesh**
Assessor: **Bureau Veritas**
Date: **10 Jun 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:	POLO COMPOSITE KNIT INDUSTRY LTD.
Address:	226, Singair Road, Hemayetpur, Savar Savar Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Savar
Zip Code:	1340
Audit Duration:	1 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	06-14-2014
Final Report Date:	06-30-2014
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	There are 11 buildings in the factory premises out of which six are main production buildings and five are ancillary buildings. The buildings are named as: 1) Eight story RCC main production building (building-2), 2) Five story RCC main production building (building-3), 3) Four story RCC main production building (building-4), 4) Two story RCC utility building, 5) Two story RCC child care building, 6) Two story RCC ETP building, 7) Single story prefab production shed (shed-1), 8) Single story prefab production shed (shed-2), 9) Single story prefab yarn storage shed (shed-3), 10) Single story prefab wastage storage shed, 11) Doctors room at ground floor of eight story RCC building-1 (AJI Group) which is commonly used by polo composite knitting and AJI Group.
Is the building(s) owned or rented by the Factory:	Owned
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) Building-2: 24.16 m or 79.25 ft [27.51 m or 90.25 ft], 8, 0, 8. 2) Building-3: 13.41 m or 44 ft [Height up to roof: 16.77 m or 55 ft], 5, 0, 5. 3) Bbuilding-4: 10.06 m or 33 ft [13.41 m or 44 ft], 4, 0, 4. 4) Utility building: 6.4 m or 21 ft [9.45 m or 31 ft], 2, 0, 2. 5) Child care building: 2.74 m or 9 ft [5.5 m or 18 ft], 2, 0, 2. 6) ETP building: 5.48 m or 18 ft [10.06 m or 33 ft], 2, 0, 2. 7) Production (shed-1): 30 cm or 1 ft above grade [6.4 m or 21ft], 1, 0, 1. 8) Production (shed-2): 30 cm or 1 ft above grade [6.4 m or 21ft], 1, 0, 1. 9) Yarn storage (shed-3): 30 cm or 1 ft above grade [6.4 m or 21ft], 1, 0, 1. 10) Wastage storage: 30 cm or 1 ft above grade [2.74 m or 9 ft], 1, 0, 1. 11) Building-1 (AJI Group): 24.16 m or 79.25 ft [27.51m or 90.25 ft], 8, 0, 1.
Approximate Building Area (SF):	Total area of all buildings in the factory premises: 227897 sft. Building wise breakdown as follows: 1) Building-2: 92400.00 sft (Ground floor: 11000.00 sft, Mezzanine floor: 4400.00 sft, 1st floor: 11000.00 sft, 2nd floor:



	11000.00 sft, 3rd floor: 11000.00 sft, 4th floor: 11000.00 sft, 5th floor: 11000.00 sft, 6th floor: 11000.00 sft, 7th floor: 11000.00 sft), 2) Building-3: 50000.00 sft (Ground floor: 10000.00 sft, 1st floor: 10000.00 sft, 2nd floor: 10000.00 sft, 3rd floor: 10000.00 sft, 4th floor: 10000.00 sft), 3) Building-4: 16120 sft (Ground floor: 4030.00 sft, 1st floor: 4030.00 sft, 2nd floor: 4030.00 sft, 3rd floor: 4030.00 sft), 4) Utility building: 5600 sft (Ground floor: 3000.00 sft, 1st floor: 2600.00 sft), 5) Child care building: 400 sft (Ground floor: 200.00 sft, 1st floor: 200.00 sft), 6) ETP building: 5992 sft, 7) Shed-1: 22500 sft, 8) Shed-2: 21499 sft, 9) Shed-3: 12836 sft, 10) Wastage storage: 400 sft, 11) Building-1: 150 sft.
Date of Building Construction:	Factory personnel informed the date of construction as follows: Finished in 2005 (All buildings).
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 utility building, 2) Two story RCC child care building, 3) Two story RCC ETP building, 4) Single story prefab wastage storage shed, 5) Doctors room at ground floor of eight story RCC building-1 (AJI Group).
Approximate Ancillary Structures Area (SF):	1) Two story RCC utility building: 5600 sft (Ground floor: 3000.00 sft, 1st floor: 2600.00 sft), 2) Two story RCC child care building: 400 sft. (Ground floor: 200.00 sft, 1st floor: 200.00 sft), 3) Two story RCC ETP building: 5992 sft. 4) Single story prefab wastage storage shed: 400 sft. 5) Doctors room at ground floor of eight story RCC building-1 (AJI Group): 150 sft.
Number of Occupants:	Total number of occupants: 2554 1. 8 story RCC main production building (building-2): 1635. (Ground floor: 9, 1st floor: 352, 2nd floor: 104, 3rd floor: 68, 4th floor: 165, 5th floor: 454, 6th floor: 477, 7th floor: 6), 2. 5 story RCC main production building (building-3):206. (Ground floor: 28, 1st floor: 42, 2nd floor: 68, 3rd floor: 58, 4th floor: 10.) 3. 4 story RCC main production building (building-4):52. (Ground floor: 30, 1st floor: 10, 2nd floor: 2, 3rd floor: 10). 4. 2 story RCC utility building: 7. (Ground floor: 5, 1st floor: 2). 5. 2 story RCC child care building: 22. (Ground floor: 12, 1st floor: 10). 6. 2 story RCC ETP building: 15. 7. Single story prefab production shed (shed-1): 453. 8. Single story prefab production shed (shed-2): 151. 9. Single story prefab yarn storage shed (shed-3): 10. 10. Single story prefab wastage storage shed: 1. 11. Doctors room at ground floor of 8 story RCC building-1 (AJI Group): 2.
Number of Ancillary Levels (Stories):	1. 2 story RCC utility building: Building height (Highest occupied floor level): 6.4 m or 21 ft [Height up to roof: 9.45 m or 31 ft], Stories above grade: 2, Stories below grade: 0, Occupied levels: 2, 2. 2 story RCC child care building: Building height (Highest occupied floor level): 2.74 m or 9 ft [Height up to roof: 5.5 m or 18 ft], Stories above grade: 2, Stories below grade: 0, Occupied levels: 2, 3. 2 story RCC ETP building: Building height (Highest occupied floor level): 5.48 m or 18 ft [Height up to roof: 10.06 m or 33 ft], Stories above grade: 2, Stories below grade: 0, Occupied levels: 2, 4. Single story prefab wastage storage shed: Building height (Highest occupied floor level): 30 cm or 1 ft above grade [Height up to roof:2.74 m or 9ft], Stories above grade: 1, Stories below grade: 0, Occupied levels: 1. 5. Doctors room at ground floor of 8 story RCC building-1 (AJI Group)
Occupancy Type:	Total number of occupants: 2554 1) Eight story RCC main production building (building-2): 1635 (Ground floor: 9, 1st floor: 352, 2nd floor: 104, 3rd floor: 68, 4th floor: 165, 5th floor: 454, 6th floor: 477, 7th floor: 6), 2) Five story RCC main production building (building-3): 206 (Ground floor: 28, 1st floor: 42, 2nd floor: 68, 3rd floor: 58, 4th floor: 10), 3) Four story RCC main production building (building-4): 52 (Ground floor: 30, 1st floor: 10, 2nd floor: 2, 3rd floor: 10), 4) Two story RCC utility building: 7 (Ground floor: 5, 1st floor: 2), 5) Two story RCC child care building: 22 (Ground floor: 12, 1st floor: 10), 6) Two story RCC ETP building: 15, 7) Single story prefab production shed (shed-1): 453, 8) Single story prefab production shed (shed-2): 151, 9) Single story prefab yarn storage shed (shed-3): 10, 10) Single story prefab wastage storage shed: 1, 11) Doctors room at ground floor of eight story RCC building-1 (AJI Group): 2.
Construction Type:	1) Eight story RCC main production building (building-2): [Ground floor to 6th floor: Type 1, 7th floor: Non-rated (Only ceiling)], 2) Five story RCC main production building (building-3): Type 1, 3) Four story RCC main production building (building-4): Type 1, 4) Two story RCC utility building: Type 1, 5) Two story RCC child care building: Type 1, 6) Two story RCC ETP building: [Ground floor: Type 1, 1st floor: Non-rated], 7) Single story



	<p>prefab production shed (shed-1): Non-rated, 8) Single story prefab production shed (shed-2): Non-rated, 9) Single story prefab yarn storage shed (shed-3): Non-rated, 10) Single story prefab wastage storage shed: Non-rated, 11) Doctors room at ground floor of eight story RCC building-1 (AJI Group): Type 1.</p>
<p>Height of Highest Occupied Floor Level Above Grade:</p>	<p>1) Eight story RCC main production building (building-2): 24.16 m or 79.25 ft, 2) Five story RCC main production building (building-3): 13.41 m or 44 ft, 3) Four story RCC main production building (building-4): 10.06 m or 33 ft, 4) Two story RCC utility building: 6.4 m or 21 ft, 5) Two story RCC child care building: 2.74 m or 9 ft, 6) Two story RCC ETP building: 5.48 m or 18 ft, 7) Single story prefab production shed (shed-1): 30 cm or 1 ft above grade, 8) Single story prefab production shed (shed-2): 30 cm or 1 ft above grade, 9) Single story prefab yarn storage shed (shed-3): 30 cm or 1 ft above grade, 10) Single story prefab wastage storage shed: 30 cm or 1 ft above grade, 11) Doctors room at ground floor of eight story RCC building-1 (AJI Group): 24.16 m or 79.25 ft.</p>



ASSESSMENT FINDINGS

Fire Protection Construction

Question:	Are openings and penetrations through rated walls and/or assemblies protected?
Priority Level:	High
Non-Compliance Level:	3
Description:	The walls at ground floor level of corridor in main building-3 have glass high-windows and a steel grill window. Similar openings are present in other fire rated walls. Also, the generator room and storage is unprotected. Such unprotected openings are not allowed according to Alliance Standard.
Source of Findings:	Visual Assessment: High windows are available on fire rated walls.
Suggested Plan of Action:	Provide 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:	02 Oct 2014
Standard:	Includes doors, windows, ducts, piping, etc. Reference Alliance Standards Part 4 Section 4.6 Opening Protectives and Section 4.7 Penetrations
Question:	Are exit enclosures provided with fire-resistive rated construction barriers?
Priority Level:	High
Non-Compliance Level:	3
Description:	There are 2 stairs in both the eight story RCC main production building (building-2) and in the five story RCC main production building (building-3). Fire doors are installed in these stairs, but no credible certificates are found. On ground floor of five story RCC main production building (building-3), the south stair is open to a corridor without fire separation.
Source of Findings:	Visual Assessment: No certificates are available for fire doors. South stair of five story RCC main production building (building-3) opens to a corridor.
Suggested Plan of Action:	Provide 2 hr fire-resistive rated construction barriers at exit enclosures. Fit outward opening, side-swinging, self-closing, non-lockable fire doors of 1.5 hr rating in all stairwell enclosures. Consult a qualified fire protection engineer to design the required rated construction barriers.
Suggested Deadline Date:	02 Oct 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:	Openings are provided between all slabs from ground to 4th floors of south side of 5 story building-3; there is no provided fire door according to Alliance Standards.
Source of Findings:	Visual Assessment: Unprotected shaft at five story RCC main production building-3.
Suggested Plan of Action:	Provide a shaft enclosure of required rating by constructing the enclosure with rated material of required thickness. Protect the openings of shaft enclosure by providing rated opening protectives.
Suggested Deadline Date:	02 Oct 2014
Standard:	Reference Alliance Standards Part 4 Section 4.5.7.1 through 4.5.7.3
Question:	Are separations between hazards provided with fire-resistive rated construction barriers.
Priority Level:	Medium
Non-Compliance Level:	3
Description:	There is spot removing room on 7th floor of eight story RCC main production building (building-2) with glass and aluminum partitions. A spot lifter and detergent liquid is used in this room. There is a chemical store at ground floor of five story RCC main production building (building-3) with no fire separation where hazardous chemicals are stored. The spot removing room and chemical store need to be fire separated with fire doors according to Alliance. Boiler room and production area at single story prefab production shed (shed-1) and single story prefab production shed (shed-2) are not separated by fire-resistive rated construction barriers. These different occupancies need to be fire separated according to Alliance Standard.
Source of Findings:	Visual Assessment: Spot removing room is not fire separated; chemical store is not fire separated; and the boiler room in single story prefab production shed (shed-2) is not fire separated.
Suggested Plan of Action:	Provide fire-resistive rated construction barriers between hazard types following Table 4.4.1 of Alliance Standard. Consult a qualified fire protection engineer to design the required rated construction barrier.
Suggested Deadline Date:	25 Dec 2014
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation
Question:	Certificates of Occupancy for each building have been issued and are on file.
Priority Level:	Low





Non-Compliance Level:	2
Description:	No occupancy certificate is 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 PWD for issuance of occupancy certificate and pursue the matter to expedite.
Suggested Deadline Date:	21 Aug 2014
Standard:	Are certificates of occupancy provided for each building or ancillary structure?

Fire Protection Systems

Question:	Is the building protected by an automatic sprinkler system?
Priority Level:	High
Non-Compliance Level:	3
Description:	The height of the highest occupied level of the eight story RCC main production building (building-2) is 24.16 m (79.25 ft.). The whole building needs to be protected by an automatic sprinkler system. But a sprinkler system is not provided in the building. Automatic sprinkler systems are to be provided throughout the buildings with an occupied floor greater than 23 m (75 ft) above the finished grade in accordance with the requirements of NFPA 13.
Source of Findings:	Visual Assessment: The height of the main building was measured and it was realized that sprinkler system is required. No sprinkler system was found.
Suggested Plan of Action:	Install an automatic sprinkler system throughout the building designed by a qualified fire protection engineer. The hydraulic design of the sprinkler system must be pre-approved by CoE of Alliance. All installation and design requirements outlined in BNBC Part 4 Chapter 4 shall be replaced by the requirements of NFPA 13. Pipe schedules shall not be used to size pipe. All systems shall be hydraulically calculated to meet the required NFPA 13 design requirements. Installation of new automatic sprinkler systems shall be required to provide shop drawings and hydraulic calculations as outlined in NFPA 13.
Suggested Deadline Date:	19 Mar 2015
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:	Does the building have a Standpipe System?
Priority Level:	High
Non-Compliance Level:	3
Description:	The height of the highest occupiable floor of the main building is 24.16 m (79.25 ft.) above grade. Standpipe systems must be installed throughout all





	<p>new and existing buildings and structures where the highest occupied floor is more than 10 m (33 ft) above grade or more than 10 m (33 ft) below grade. Therefore, a class I standpipe system needs to be installed throughout the main building at required stairwells as per Alliance Standard. There is no standpipe system in the main building that meets NFPA requirements. Only 1 inch diameter plastic hose pipe and class II standpipe system are installed in the main building. There is no hydraulic design for the installed system. There is no class-I standpipe hose connection (65 mm) available in stairwells of the main building.</p>
Source of Findings:	Visual Assessment: Only 1 inch diameter plastic hose pipe and class II standpipe system are installed in the main building.
Suggested Plan of Action:	Install NFPA-compliant standpipe system at required locations, meeting all requirements of the Alliance Standards.
Suggested Deadline Date:	02 Oct 2014
Standard:	Does the building have a standpipe system installed where required. Alliance Standard Part 5 Section 5.4.2
Question:	Does the building have a fire pump?
Priority Level:	High
Non-Compliance Level:	3
Description:	Fire pump is available; however it does not comply with the requirements of Alliance Standards and NFPA 20. Hydraulic calculation for installed standpipe and sprinkler systems are not also available.
Source of Findings:	Visual Assessment: Dedicated fire pump is available but does not meet the requirements.
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. Also, identify all other performance data and ensure conformity to NFPA standards.
Suggested Deadline Date:	02 Sep 2014
Standard:	Alliance Standard Part 5 Fire Protection Systems
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:	The main buildings and sheds, except the generator room, have an automatic fire alarm and detection system.
Source of Findings:	Visual Assessment: Required detector is not available in generator room.






Suggested Plan of Action:	Provide an automatic fire alarm and detection system per the Alliance Standard. Install area smoke detectors throughout E, G2 & J occupancies per Section 5.7.3, except where sprinklers are installed throughout. Pull stations at egress points, smoke detectors in air handling equipment, visual and audible devices must be spaced appropriately and directly connected to the fire alarm system for automatic activation based on occupancy type in accordance with NFPA 72.
Suggested Deadline Date:	02 Oct 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
Question:	Are fire department connections provided and clearly identified for the Fire Protection Systems?
Priority Level:	Medium
Non-Compliance Level:	2
Description:	Fire department connections are not provided to allow fire department pumper equipment to supplement the fire protection systems as per the Alliance Standard.
Source of Findings:	Visual Assessment: No fire department connection was found.
Suggested Plan of Action:	Install fire department connections where required and in compliance with the Standard. 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 Defense hose thread standard.
Suggested Deadline Date:	25 Dec 2014
Standard:	Alliance Standard Part 5 Section 5.5.4 Fire Department Connections
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 personnel.
Suggested Plan of Action:	Fire extinguishers are to be inspected, tested, and maintained in accordance with NFPA requirements.



Suggested Deadline Date:	25 Dec 2014
Standard:	NFPA 10 Chapter 7
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:	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 also capable of monitoring fire alarm and detection systems of the factories.
Source of Findings:	Visual Assessment: No central station for monitoring service 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 as per Alliance Standard. Until that time that monitoring can be set up, arrange a monitoring system using 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:	07 Aug 2014
Standard:	Alliance Standard Part 5 Section 5.7.5 Monitoring
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 class I standpipe system is not installed in all buildings. Inspection, maintenance, and testing procedures of the standpipe and hose is not documented and up to date for existing system.
Source of Findings:	Document Review: No document regarding inspection, maintenance and testing procedure of standpipe and hose system was found among the documents shown by the factory personnel.
Suggested Plan of Action:	Install a NFPA-compliant class I standpipe system at required locations designed by a qualified fire protection engineer. Then establish required inspection, maintenance, and testing program for the standpipe and hose system.
Suggested Deadline Date:	25 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 class I standpipe system is not installed in all buildings. Signage for the standpipe system is not installed also.	
Source of Findings:	Visual Assessment: No signage found during inspection.	
Suggested Plan of Action:	Install a standpipe system at required locations designed by a qualified fire protection engineer. The system is to be compliant with the requirements of NFPA 14. Install required identification signs at the noted locations.	
Suggested Deadline Date:	25 Dec 2014	
Standard:	Reference NFPA 14 Chapter 6	
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 for 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:	Establish an inspection, maintenance, and testing program for the fire pump. Program must comply with NFPA requirements.	
Suggested Deadline Date:	02 Sep 2014	
Standard:	Reference NFPA 25 Chapter 8 Fire Pumps	
Means of Egress		
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:	There are unprotected windows at walls of corridors on ground floor in eight story RCC main production building (building-2) and five story RCC main	



	production building (building-3). The south stair of building-3 ends on ground floor near chemical store and batching section, the exit path passes through a corridor. In building-2, south stair ends on ground floor and passes through a corridor beside fabric store. Both of these corridors are not fire protected since the windows are not provided with 0.75 hour rated opening protective assemblies as required by Alliance Standard Part 6 Section 6.3.1.1.	
Source of Findings:	Visual Assessment: Exit access corridor is not fire separated.	
Suggested Plan of Action:	Provide fire-resistive rated assemblies at the required exit access corridors. The rated assembly should be approved and/or 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 in accordance with 4.5 unless provided with automatic sprinkler protection throughout the story or building. Window and glass block assemblies are to be tested fire rating following NFPA 257.	
Suggested Deadline Date:	02 Oct 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:	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:	3	
Description:	In 4 story RCC main production building (building-4), there is only one exit stair; a single exit is not permitted. This violates the Alliance Standard.	
Source of Findings:	Visual Assessment: The number of emergency exit doors and stairs were counted.	
Suggested Plan of Action:	Provide minimum 2 exits and stairs for this building from top floor to ground floor.	
Suggested Deadline Date:	02 Oct 2014	
Standard:	Alliance Standard Part 6 Section 6.6 Number of Means of Egress	
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:	3	
Description:	There are locking arrangements like hasps, locks and slide bolts at the exit doors but doors are not locked. This violates the Alliance Standard.	
Source of Findings:	Visual Assessment: Locking arrangement found in path of egress.	



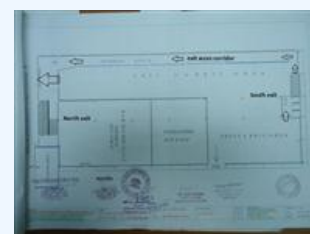
Suggested Plan of Action:	Remove existing gates and doors in the means of egress including all locking devices. Install doors with approved panic hardware that cannot be locked in the direction of egress under any conditions.	
Suggested Deadline Date:	24 Jul 2014	
Standard:	Alliance Standards Part 6 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. 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 Standard.	
Source of Findings:	Visual Assessment: Doors along the path of egress are not fire doors.	
Suggested Plan of Action:	Provide 1 hr fire protective opening assemblies in 1 hr rated exit enclosures. Provide 1.5 hr fire protective opening assemblies in 2 hr rated exit enclosure. Install approved fire rated doors that are listed, permanently labeled, automatic- closing, in compatible fire rated frames with latching hardware.	
Suggested Deadline Date:	02 Oct 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:	Occupant loads on each level (floor) do not exceed the capacity of the available means of egress.	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	On 6th floor of 8 story RCC main production building (building-2), occupant load is 477, which is the maximum among all floors. The floor area is 1022.3 m ² , so space per occupant is 2.14 m ² , which is less than the required 2.3 m ² (25 sft.) according to Alliance Standard.	
Source of Findings:	Visual Assessment: Number of occupants was obtained from register. Widths of exit doors and stairs of the concerned floor were measured.	
Suggested Plan of Action:	Reduce the number of occupants on this floor to available capacity in respect of stair width and space per person, or provide an additional stair to meet the requirement of total stair width. Otherwise, provide sprinkler system in the building so that required stair width per person becomes 5 mm.	
Suggested Deadline Date:	24 Jul 2014	



Standard:	Alliance Standard Part 6 Section 6.4 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:	2	
Description:	Aisle widths at 6th floor and 5th floor of eight story RCC main production building (building-2) is 0.68 m, which violates Alliance Standard.	
Source of Findings:	Visual Assessment: Aisle widths are not sufficient on 6th floor.	
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:	02 Oct 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:	2	
Description:	Total width of 2 stairs in the eight story RCC main production building (building-2) is 2.8 m. Maximum number of occupant is in 6th floor. Total width requirement for 477 occupants in 6th floor is 3.82 m. Available stair width (2.8 m) does not satisfy the requirement of Alliance Standard or BNBC requirements. Minimum width of aisles does not meet the requirement at 6th floor of main building-2. Unobstructed clear width of aisles is 0.84 m, 1.22 m, 1.17 m, 0.69 m, 1.37 m, 0.79 m, respectively. This violates the Alliance Standard.	
Source of Findings:	Visual Assessment: Stair width of eight story RCC main production building (building-2) were found to be insufficient.	
Suggested Plan of Action:	Satisfy total width requirement for aisles/corridor/ramp, stairway and exit door as per BNBC requirements. Required exit widths per occupant for stairway, aisles/corridor/ramp and exit door are 8mm, 5mm and 4mm, respectively.	
Suggested Deadline Date:	02 Oct 2014	
Standard:	Alliance Standard Part 6 Section 6.5 Egress Width and BNBC Table 4.3.2	
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:	2
Description:	On ground floor level of eight story RCC main production building (building-2) and five story RCC main production building (building-3), there are 2 exits, 1 leading directly to street. The other exit passes through the corridor which is not fire separated. This is a violation of the Alliance Standard.
Source of Findings:	Visual Assessment: Exit on ground floor of five story RCC main production building (building-3) passes through an unprotected corridor.
Suggested Plan of Action:	Provide a rated exit passageway i.e. protected path of egress from the exit enclosure to the public way. The rating of the exit passageway is to be equal to fire rating requirement of the exit that is being served and shall not be less than 1 hr fire-resistance rated.
Suggested Deadline Date:	02 Oct 2014
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:	2
Description:	Maximum travel distance at ground floor of eight story RCC main production building (building-2) for south exit is 81 m (i.e. above maximum 60 m), but an automatic sprinkler system, automatic fire detection system, portable fire extinguisher or standpipe system are not provided. This is not in compliance with the Alliance Standard.
Source of Findings:	Visual Assessment: Travel distance 81 m for south exit at ground floor of eight story RCC main production building (building-2).
Suggested Plan of Action:	Install an automatic sprinkler system, automatic fire alarm system and portable fire extinguishers covering whole area of the building in accordance with Alliance Standard.
Suggested Deadline Date:	02 Oct 2014
Standard:	Alliance Standard Part 6 Section 13 Travel Distance and BNBC Part 4 Section 3.15.1
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:	2
Description:	At 6th floor of 8 story RCC main production building (building-2), occupant load






	is 477, which is the maximum of all floors. There are 2 exits and stairs. Available stair width does not meet the requirement of this occupant load. Total width of aisles, exit doors and stairs are 6.86 m, 3.3 m and 2.8 m, respectively, whereas required total widths for these means of egress are 2.38 m, 1.9 m and 3.8 m, respectively.
Source of Findings:	Visual Assessment: The number of emergency exit doors and stairs were counted and occupant loads were checked.
Suggested Plan of Action:	Provide an additional exit and stair at 6th floor to meet the requirement of Alliance Standards or reduce occupant load to meet the requirement.
Suggested Deadline Date:	02 Oct 2014
Standard:	Alliance Standard Part 6 Section 6.6 Number of Means of Egress
Question:	All doors in a means of egress are of the side-hinged swinging type.
Priority Level:	High
Non-Compliance Level:	2
Description:	Some of the doors in the means of egress are side-hinged swinging type, collapsible and sliding type. This violates the Alliance Standard.
Source of Findings:	Visual Assessment: All exit doors are not side-hinged swinging type.
Suggested Plan of Action:	Replace all non-compliant doors and frames in the means of egress with doors that are listed, approved, automatic-closing, side-swinging, fire rated doors in compatible fire rated frames with latching panic hardware.
Suggested Deadline Date:	02 Oct 2014
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:	2
Description:	Intermediate landing width of stair-02 is narrower than the stair width. The total width of all stairs is 2.92m. But considering the landing width of stair-02 as the width of stair-02, the total width of stairs becomes 2.8m; the required width is 3.8 m since occupant load is 477 at 6th floor of main building-2. This violates Alliance Standards.
Source of Findings:	Visual Assessment: Landing has less width than the stair width.
Suggested Plan of Action:	Increase the landing width to make it equal to the width of the stair following the requirements of Alliance Standards, or provide an additional stair to meet





	the requirement.	
Suggested Deadline Date:	02 Oct 2014	
Standard:	Alliance Standard Part 6 Section 6.9 Stairs and Section 6.5	
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:	3	
Description:	Occupant loads are not posted in any assembly or production floor as required.	
Source of Findings:	Visual Assessment: Occupant loads are not posted in any assembly and production floor.	
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:	07 Aug 2014	
Standard:	Alliance Standards Part 6 Section 6.4.4 Posting of Occupant Load	
Question:	All paths of egress are provided with compliant means of illumination.	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	Paths of egress at eight story RCC main production building (building-2) are not provided with compliant means of illumination. Illuminated exit signs are not placed at all required locations.	
Source of Findings:	Visual Assessment: All paths of egress were not provided with compliant means of illumination.	
Suggested Plan of Action:	Install appropriate means of illumination at the noted locations. The means of egress paths shall be illuminated at all times the building is occupied. Illumination shall be a minimum of 10 lux for all corridors, exit doors, and stairways. Aisles shall be provided with a minimum 2.5 lux.	
Suggested Deadline Date:	25 Dec 2014	
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:	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:	3	
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:	Verify emergency power for egress lights at least once per year. If battery operated lights are used, test them monthly. Perform annual functional testing of battery powered lights for at least 30 minutes. Ref. 10.12.2.3.	
Suggested Deadline Date:	07 Aug 2014	
Standard:	Alliance Standards Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape Lighting	
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:	3	
Description:	No plan or record of conducting periodic test for the emergency battery back up of illumination of exit sign 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 90 min once per year.	
Suggested Deadline Date:	07 Aug 2014	
Standard:	Alliance Standard Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape.	
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:	3	
Description:	All stairs have handrails on only one side. The handrails are mounted 34 inches (i.e. more than the required 30 inches).	



Source of Findings:	Visual Assessment: Handrail on one side of stair.
Suggested Plan of Action:	Provide handrails on both sides of each stairway. Provide intermediate handrail when the stair width exceeds 2.2 m (87 inch).
Suggested Deadline Date:	25 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:	3
Description:	The main building-2 has 8 stories, but doors are not provided with re-entry. Stair doors with re-entry are required in at least 2 floors according to Alliance Standards. 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: No re-entry door was found in the buildings.
Suggested Plan of Action:	Every door in a stair enclosure serving more than 5 stories shall be provided with re-entry unless it meets the following requirements. Stair doors may be permitted to be locked from the stair (ingress) side that prevents re-entry to the floor provided at least two floors allowing re-entry to access another exit are provided, there are not more than 4 stories intervening between re-entry floors, re-entry is allowed on the top or next to top level, re-entry doors are identified as such on the stair side, and locked doors shall be identified as to the nearest re-entry floors. When the discharge floor is determined to be a required re-entry floor using the above requirements, re-entry does not have to be provided back into the building on this level.
Suggested Deadline Date:	02 Oct 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:	2
Description:	Illuminated exit signs are placed at entrances to exits, but along the path of egress additional exit sign or directional signs are not provided where there is a change in direction and where the continuation of egress is not obvious. This condition fails to satisfy requirements stated in Alliance Standards.
Source of Findings:	Visual Assessment: No exit sign at change in direction of egress path.





Suggested Plan of Action:	Install illuminated exit signs 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.	
Suggested Deadline Date:	25 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.11 Exit Signs	
Question:	Exit signs have appropriate illumination levels and contrasting graphics.	
Priority Level:	Low	
Non-Compliance Level:	3	
Description:	All exit signs do not have appropriate illumination levels and contrasting graphics as required, and an exit sign is not available at 3rd floor of four story RCC main production building (building-4).	
Source of Findings:	Visual Assessment: Exit sign found without appropriate illumination level.	
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/m ² may also be used.	
Suggested Deadline Date:	25 Dec 2014	
Standard:	Alliance Standard Part 10 Section 10.12.1 Exit Signs	
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 is posted but stair name or designation is not mentioned in Bengali and English.	
Source of Findings:	Visual Assessment: Floor level mentioned but stair name not mentioned.	
Suggested Plan of Action:	Install signage adjacent to each stair door indicating the stair name and the floor level at the noted locations.	
Suggested Deadline Date:	07 Aug 2014	
Standard:	Alliance Standard Part 6 Section 6.9 Stairs	

Fire Safety Programs



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:	30 people are trained and certified in fire fighting, first aid and rescue training.
Source of Findings:	Document Review: 30 people are trained and certified.
Suggested Plan of Action:	Train and certify at least 25 percent of workers in fire fighting, first aid and rescue by the proper authority.
Suggested Deadline Date:	25 Dec 2014
Standard:	Alliance Standard Part 13 Human Element Programs
Question:	Storage areas underneath the cutting tables are clear of combustibles.
Priority Level:	Medium
Non-Compliance Level:	3
Description:	Fabrics were stored underneath the cutting tables of cutting section.
Source of Findings:	Visual Assessment: Combustible fabric storage underneath cutting table.
Suggested Plan of Action:	Remove all combustibles stored underneath the cutting tables at the noted locations. Establish a housekeeping plan to keep these areas continuously clear.
Suggested Deadline Date:	15 Jul 2014
Standard:	Alliance Standard Part 17 Section 13.7.2 Cutting tables.
Question:	An emergency evacuation plan has been developed and communicated to all employees.
Priority Level:	Medium
Non-Compliance Level:	2
Description:	No record of developing and communicating any emergency evacuation plan has been found. No procedure defining evacuation process was available.
Source of Findings:	Document Review: No such documentation 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:	07 Aug 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 quarterly 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 drills are conducted in all buildings but not under the direction of a Fire Safety Director.	
Suggested Plan of Action:	Conduct fire drills on a quarterly basis as outlined in BNBC Part 4 Appendix A for all garment facilities. 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:	07 Aug 2014	
Standard:	Alliance Standards Part 13 Section 13.3 Fire Drills	
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:	07 Aug 2014	
Standard:	Alliance Standards Part 13	
Question:	A written housekeeping policy is established and enforced.	
Priority Level:	Low	
Non-Compliance Level:	3	



Description:	A written housekeeping policy was not found, which is required as per Alliance Standards.
Source of Findings:	Document Review: No document regarding housekeeping policy has been found among the documents shown by factory personnel.
Suggested Plan of Action:	Establish written corporate and plant policies on housekeeping to ensure scheduled cleaning for floor, wall, ceiling, supply and return air ventilation systems. Promptly reschedule skipped cleanings. Provide a documented line of authority for authorizing a cleaning delay and rescheduling. As a general rule the maximum tolerable deposit thickness for loose fluffy lint is 13 mm (½ in.) over a maximum of 46.5 m ² (500 ft ²). Limit dense deposits to 6 mm (¼ in.) and oil saturated deposits to 3.2 mm (⅛ in.).
Suggested Deadline Date:	19 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:	3
Description:	A hot-work permit program is not established yet. It is required as per Alliance Standards. However, hot-work is not going on in the factory right now.
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 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 procedure, etc.
Suggested Deadline Date:	25 Dec 2014
Standard:	Alliance Standards Part 13 Section 13.4 Hot Work Permit and NFPA 51B
Question:	A Fire Safety Director position has been filled.
Priority Level:	Low
Non-Compliance Level:	2
Description:	A man introduced as Fire Safety Director was present in the meeting, but no viable documentation was found.
Source of Findings:	Document Review: No viable documentation 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:	25 Dec 2014	
Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director	
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:	07 Aug 2014	
Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director	
Question:	Are all applicable permits up to date including Fire License & Boiler License.	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	Fire license is available; boiler license is available. A BEREC license is not available; management applied for BEREC license on November 24, 2012. A licensed electrician is not available. Factory uses acid but acid license is not available.	
Source of Findings:	Document Review: Fire licence and boiler licence are available, but BEREC licence, licence for electrician, and acid licence were not found.	
Suggested Plan of Action:	Apply to Biddiyut License Prodan Board for electrician license and to 'Savar DC office' for Acid license.	
Suggested Deadline Date:	07 Aug 2014	
Standard:	Alliance Standard Part 13 Human Element Programs	