INITIAL FIRE ASSESSMENT REPORT (FAR)

Factory Name:	**STERLING STYLES LIMITED**
Address:	**Baron, Earpur Union, Ashulia, Savar Ashulia, Savar Dhaka Bangladesh**
Assessor:	**Bureau Veritas**
Date:	**26 May 2014**

Introduction to the Report

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

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

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

GENERAL INFORMATION

General Information	
Factory Name:	STERLING STYLES LIMITED
Address:	Baron, Earpur Union, Ashulia, Savar Ashulia, Savar Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Ashulia, Savar
Zip Code:	1349
Audit Duration:	1 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	06-03-2014
Final Report Date:	06-17-2014
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	There are 2 buildings in the factory premises out of which one is main building and another one is ancillary building. The buildings are named as: 1) Seven story main building, 2) Single story security station.
Is the building(s) owned or rented by the Factory:	Owned
Number of Building Levels (Stories):	1) Seven story main building: Building height (Highest occupied floor level): 26.46 m or 86.78 ft [Height up to roof: 29.81 m or 97.77 ft], Story above grade: 7, Story below grade: 0, Occupied levels: 7 (with occupied roof), 2) Single story security station: Building height (Highest occupied floor level): 20.00 cm or 0.65 ft above grade [Height up to roof: 2.74 m or 9.00 ft], Story above grade: 1, Story below grade: 0, Occupied level: 1.
Approximate Building Area (SF):	Total area of buildings in the factory premises: 306840.00 sft. Building wise breakdown as follows: 1) Seven story main building: 306790 sft (Ground floor: 43040.00 sft, 1st floor: 43950.00 sft, 2nd floor: 43950.00 sft, 3rd floor: 43950.00 sft, 4th floor: 43950.00 sft, 5th floor: 43950.00 sft, 6th floor: 43950.00 sft, Occupied roof: 800.00 sft), 2) Single story security station: 50.00 sft.
Date of Building Construction:	Factory personnel informed the date of construction as follows: 1) Seven story main building: From ground floor to 3rd floor: Finished in April-2007.
Date of Last Building Renovation/Addition:	Factory personnel informed the date of last building renovation as follows: 1) Seven story main building: From 4th floor to 6th floor: Finished in February-2014.
Ancillary Structures in Complex:	1) Single story security station.

Approximate Ancillary Structures Area (SF):	1) Single story security station: 50.00 sft.
Number of Occupants:	Total number of occupants: 3490. 1) Seven story main building: 3480 (Ground floor: 130, 1st floor: 1000, 2nd floor: 1000, 3rd floor: 150, 4th floor: 500, 5th floor: 700, 6th floor: 0, Occupied roof: 2), 2) Single story security station: 10.
Number of Ancillary Levels (Stories):	1) Single story security station: Building height (Highest occupied floor level): 20.00 cm or 0.65 ft above grade [Height up to roof: 2.74 m or 9.00 ft], Story above grade: 1, Story below grade: 0, Occupied level: 1.
Occupancy Type:	1) Seven story main building: [Ground floor: H2 (Bonded ware house, Central accessories store), K (Generator room, Boiler room, Sub-station room), B2 (Child Care), E4 (Dining hall), D1 (Medical room), K (Fire pump), 1st floor: G2 (Sewing and finishing section, Spot remove room), 2nd floor: G2 (Sewing and finishing section, Spot remove room), H2 (Sub-store), K (Maintenance room), F1 (Office), 3rd floor: E3 (Dining hall, Prayer room), H2 (Finished goods store), G2 (Sample section), 4th floor: G2 (Cutting section), H2 (Finished goods store), 5th floor: G2 (Sewing and finishing section), K (Maintenance section), H2 (Sub-store), F1 (Office), 6th floor: (Under process renovation), Occupied roof: H2 (Store of civil materials)], 2) Single story security station: F1 (Security office).
Construction Type:	1) Seven story main building: Type-1, 2) Single story security station: Type-1.
Height of Highest Occupied Floor Level Above Grade:	1) Seven story main building: 26.46 m or 86.78 ft, 2) Single story security station: 20.00 cm or 0.65 ft above grade.

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:	There are openings in the generator, boiler and substation room. There is a dining room inside fabric store with a non-rated glass fabricated partition and exit. Also, there is a kitchen under the southeast staircase which is near the fabric store; no fire doors are fitted at kitchen and fabric store.	
Source of Findings:	Visual Assessment: Unprotected openings and penetrations found through rated walls.	
Suggested Plan of Action:	Protect openings in fire resistance rated walls of generator, boiler and substation room in accordance to the Alliance Standard. Close these openings if they are not required. Dining area inside fabric store should be relocated or separated by 1 hr. fire rated wall with 1 hr. fire rated door. Kitchen near fabric store must be relocated.	
Suggested Deadline Date:	19 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:	Are exit enclosures provided with fire-resistive rated construction barriers?
Priority Level:	High
Non-Compliance Level:	3
Description:	There are 5 exit stairs in the building. None of the stair enclosures are fire protected. No fire doors are installed at exits of any floor. There is a kitchen with LPG operated gas burner available on ground floor under southeast stair case and exit door is made of plywood. One non-rated window is available inside kitchen.
Source of Findings:	Photograph: (1) Various pictures of stair enclosure; (2) Typical stair entrance into Stair #1; (3) Typical stair entrance into Stair #3; (4) Typical stair entrance into Stair #4, Visual Assessment: Steel sliding doors are available at all exit enclosures.
Suggested Plan of Action:	Provide outward opening, side-swinging, self-closing, non-lockable fire doors of 1.5 hour rating in all enclosures of main building as per Alliance Standards. Consult a qualified fire protection engineer to design the required rated construction barriers. Remove the kitchen area from the stair.
Suggested Deadline Date:	19 Sep 2014
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation





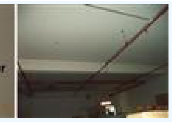


Question:	Are shafts provided with the minimum fire-resistance rating?
Priority Level:	High
Non-Compliance Level:	2
Description:	All the lift cores open to stair enclosures. Stair enclosures are not fire rated.
Source of Findings:	Visual Assessment: Lift cores were available in the main building.
Suggested Plan of Action:	Protect the openings of shaft enclosure by providing rated opening protective. Stair enclosures should be fire rated therefore opening at exit enclosures from production floor should be fire rated.
Suggested Deadline Date:	19 Sep 2014
Standard:	Reference Alliance Standards Part 4 Section 4.5.7.1 through 4.5.7.3

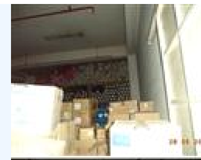
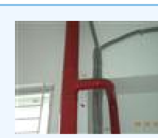
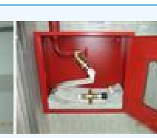
Question:	Are separations between hazards provided with fire-resistive rated construction barriers.
Priority Level:	Medium
Non-Compliance Level:	3
Description:	There is a dining hall inside fabric store on ground floor without proper fire separation. Stair #4 opens directly into a fabric storage area on Ground Floor. Finished goods storage on First Floor and Second Floor have no fire separation. There are openings in the wall on the Ground Floor between the main egress corridor and the cutting area and between the main egress corridor and the fabric godown. These different occupancies need to be fire separated according to Alliance Standards. There are two spot removing rooms (1st and 2nd floors) with glass and aluminum partitions. One uses solvent with compressed air guns and the other uses solvent in aerosol. Both the rooms need to be 1 hour fire separated with 45 minute fire resistant doors. In-process goods are kept haphazardly on various floors and are not maintained as per the miscellaneous storage requirement (area 250 sq ft, height 8 ft, separation from adjacent area 10 ft) of the Alliance Standard.
Source of Findings:	Photograph: (1) Separations not provided; (2) Finished Goods Storage on First Floor separated with fence; (3) Openings on the Ground Floor between the corridor and fabric storage, Visual Assessment: Separations between hazards were not provided with fire-resistive rated construction barriers.
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:	12 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:	1
Description:	No occupancy certificate available for main building and ancillary building in the factory premises.
Source of Findings:	Document Review: The factory does not have an occupancy certificate from PWD for any of its buildings.
Suggested Plan of Action:	Apply to PWD for issuance of occupancy certificate in an expeditious manner.
Suggested Deadline Date:	08 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 main building is 26.46 m (86.78 ft), so the whole building needs to be protected by an automatic sprinkler system. An automatic sprinkler is available only inside fabric store at ground floor of main building without approved design.
Source of Findings:	Visual Assessment: Height of the highest occupied level of the main building is 26.46m (86.78ft). Therefore, the whole building needs to be protected by automatic sprinkler system.
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 has to be pre-approved by Code 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 design requirements. Installation of new automatic sprinkler systems shall be required to provide shop drawings and hydraulic calculations.
Suggested Deadline Date:	01 Feb 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:	Are sprinklers spaced and installed at the required heights in order to provided required coverage and protection?
Priority Level:	High
Non-Compliance Level:	3
Description:	Automatic sprinkler system is not designed and installed in the main building except at ground floor storage area. No approved hydraulic calculation is available for the installed system. Sprinklers are spaced at 8 ft interval and installed at 10 ft height above floor.
Source of Findings:	Visual Assessment: Spacing and installation height of sprinklers was measured during site visit.
Suggested Plan of Action:	Sprinklers shall be spaced and installed following the requirements of NFPA 13 both for existing and required sprinkler system.
Suggested Deadline Date:	28 Feb 2015
Standard:	Reference NFPA 13

Question:	Are storage racks and shelves compliant based on class of commodity storage?	 
Priority Level:	High	
Non-Compliance Level:	3	
Description:	An automatic sprinkler system is not designed and installed in the main building except at ground floor storage area. Commodities are stacked directly on RCC floor; no rack or shelve is used.	
Source of Findings:	Visual Assessment: No rack or shelve was found for the storage of commodities.	
Suggested Plan of Action:	Provide storage racks or shelves following Alliance Standards for the existing and required sprinkler system.	
Suggested Deadline Date:	28 Feb 2015	
Standard:	Reference NFPA 13 Chapter 13, 14, 15, 16, or 17	
Question:	Does the building have a Standpipe System?	 
Priority Level:	High	
Non-Compliance Level:	3	
Description:	The height of the highest occupied floor of the main building is 26.46 m (86.78 ft) above grade i.e. above 10 m (33 ft). Therefore, a class I standpipe system needs to be installed throughout the building at required stairwells along with sprinkler system as per Alliance Standard. But only a class II standpipe system is installed in the main building. Three class II standpipe hose connections (38 mm) are installed in the floors. There is no hydraulic design for the installed system. However, at roof, hose pressure was above 4.5 bar.	
Source of Findings:	Visual Assessment: Three class-II standpipe hose connections (38 mm) are installed per floor without design and those are installed at three stairwells.	
Suggested Plan of Action:	Install NFPA-compliant Class-I standpipe system at required locations designed by a qualified fire protection engineer. All standpipe system installations and hydraulic calculations shall be reviewed by the Alliance prior to commencement of installation. Testing of the installation shall be conducted in accordance with NFPA 14 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:	19 Sep 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:	A fire pump is available, however it does not comply with the requirements of Alliance Standards and NFPA 20. A hydraulic calculation for installed standpipe and sprinkler systems are also not available.	
Source of Findings:	Visual Assessment: A fire pump is available but no hydraulic calculation was found.	
Suggested Plan of Action:	Install a pump dedicated for fire protection following NFPA requirements. 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. Acceptance testing of the installation shall be in accordance with NFPA testing requirements. Documentation of all testing shall be submitted to the Alliance for review prior to final acceptance. This pump is to be connected to an alternative power source like a generator, and the generator is to be connected with ATS (auto starter).	
Suggested Deadline Date:	19 Aug 2014	
Standard:	Alliance Standard Part 5 Fire Protection Systems	
Question:	Are hangers, bracing, and restraints properly installed and supporting the system piping?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Automatic sprinkler system is not designed and installed in the main building except at ground floor storage area. No approved hydraulic calculation is available for the installed system. Visually it seems that hangers and restraints supporting sprinkler system are sufficient, but no bracing is provided for the sprinkler piping.	
Source of Findings:	Document Review: Hangers and restraints supporting sprinkler system are sufficient, but no bracing is provided for the sprinkler piping.	
Suggested Plan of Action:	Ensure all hangers, bracing and restraints are properly installed and support the system piping at the noted locations for both of the existing and required sprinkler system following NFPA 13 Chapter 9.	
Suggested Deadline Date:	28 Feb 2015	
Standard:	Reference NFPA 13 Chapter 9 Hanging, Bracing, and Restraint of System Piping.	
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:	2	

Description:	Automatic sprinkler system is not designed and installed in the main building except at ground floor storage area. Valves controlling the existing sprinkler systems are not electrically supervised.	
Source of Findings:	Visual Assessment: Valves controlling the sprinkler system are not electrically supervised.	
Suggested Plan of Action:	Provide electrically supervised devices on the valves controlling the automatic sprinkler systems for both of the existing and required system. Devices are to be supervised by a listed fire alarm system control unit. Install a new or modify existing fire alarm and detection system to provide supervision of required valves.	
Suggested Deadline Date:	10 Dec 2014	
Standard:	Reference Alliance Standard Part 5 Section 5.3.5 Supervision and Alarms.	
Question:	Aisles in storage areas are free of storage based on design criteria used for the sprinkler system.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Automatic sprinkler system is not designed and installed in the main building except at ground floor storage area. Design criteria of sprinkler system is not available from the factory.	
Source of Findings:	Document Review: Design criteria was not found among the documents shown by the factory personnel.	
Suggested Plan of Action:	Obtain the design criteria from the sprinkler designer for the sprinkler system. If design criteria is not available, have a qualified fire protection engineer evaluate the system for proper design.	
Suggested Deadline Date:	28 Feb 2015	
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:	2	
Description:	Automatic sprinkler system is not designed and installed in the main building except at ground floor storage area. Cartons are stacked up to ceiling which is less than 18 in as demanded in NFPA 13.	
Source of Findings:	Visual Assessment: Required clearance from the top of storage to the sprinkler deflector was not sufficient.	
Suggested Plan of	Remove all storage items that encroach on the minimum clearance distance	

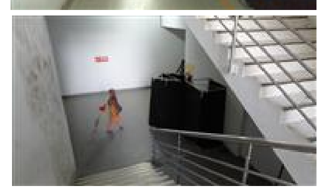
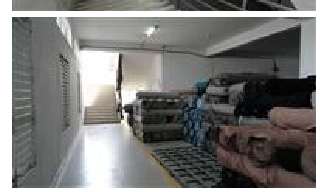
Action:	(18 in) to the sprinkler deflector.	
Suggested Deadline Date:	28 Feb 2015	
Standard:	Reference Alliance Standards Part 5 Section 5.3.6.1 Storage Clearance	
Question:	Is the fire alarm and detection system monitored by a central station monitoring service or directly connected to the Fire Service 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: Trouble or alarm notification control panel available.	
Suggested Plan of Action:	Arrange for direct connection of the fire alarm system to a central monitoring station or Fire Service and Civil Defense as per Alliance Standard. Until that time that monitoring can be set up, arrange a monitoring system using factory's own central detection system and personnel. A person shall be assigned to contact the fire department in the event of fire alarm activation. An annunciator shall be located in a constantly attended location (such as a fire control room) to alert this person.	
Suggested Deadline Date:	19 Sep 2014	
Standard:	Alliance Standard Part 5 Section 5.7.5 Monitoring	
Question:	Fire extinguishers are inspected, tested, and maintained as required.	
Priority Level:	Medium	
Non-Compliance Level:	1	
Description:	Extinguishers were 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 CO_2 extinguisher. These are required as per NFPA 10.	
Source of Findings:	Document Review: Fire extinguishers were inspected, tested, and maintained but not in accordance with NFPA requirements.	
Suggested Plan of Action:	Fire extinguishers are to be inspected, tested, and maintained in accordance with NFPA requirements.	
Suggested Deadline Date:	12 Dec 2014	
Standard:	NFPA 10 Chapter 7	

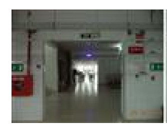
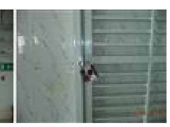
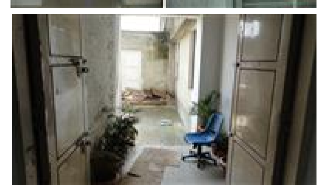
Question:	Are inspection, maintenance, and testing procedures of the sprinkler system documented and up to date?
Priority Level:	Low
Non-Compliance Level:	2
Description:	Automatic sprinkler system is not designed and installed in the main building except at ground floor storage area. Inspection, maintenance, and testing procedures of the sprinkler system as per NFPA 25 chapter 5 Table 5.1.1.2 are not documented.
Source of Findings:	Document Review: No relevant document is available.
Suggested Plan of Action:	Establish an inspection, maintenance, and testing program for both of the existing and required sprinkler system as per requirements established in NFPA 25.
Suggested Deadline Date:	10 Dec 2014
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:	2
Description:	Automatic sprinkler system is not designed and installed in the main building except at ground floor storage area. Identification signs for the sprinkler system are not installed at the required locations as per NFPA 13.
Source of Findings:	Visual Assessment: No identification sign was found for the installed sprinkler system.
Suggested Plan of Action:	Install identification signage at the required locations for both the existing and required sprinkler system. The basic types of identification signs are as follows: Type A-Control Valve Sign, Type B-Multi-Purpose Text Signs, Type D-Fire Alarm Sign, Type E-Hydraulic Calculation Sign
Suggested Deadline Date:	28 Feb 2015
Standard:	Reference NFPA 13
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:	2
Description:	Automatic sprinkler system is not designed and installed in the main building except at ground floor storage area. Approved audible device that is to activate

	by water flow is not available (as per verbal information of the factory personnel).
Source of Findings:	Visual Assessment: No approved audible device was found in the automatic sprinkler system.
Suggested Plan of Action:	Install an approved audible device connected to the automatic sprinkler system and activated by water flow equal to the flow of one sprinkler for both of the existing and required sprinkler system. The water flow switch for the sprinkler system shall be monitored by the fire alarm system. Activation of the water flow shall activate the fire alarm notification appliances.
Suggested Deadline Date:	28 Feb 2015
Standard:	Reference Alliance Standards Part 5 Section 5.3.5.2 Alarms.
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:	A class I standpipe system is not installed in the building. Inspection, maintenance, and testing procedures of the installed class II standpipe and hose are not documented and up to date.
Source of Findings:	Document Review: No document regarding inspection, maintenance and testing procedures of standpipe and hose system was found among the documents shown by the factory personnel.
Suggested Plan of Action:	Install a class I 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 requirements.
Suggested Deadline Date:	12 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:	1
Description:	Class I standpipe system is not installed in the building. Signage for the available class II standpipe system is not installed.
Source of Findings:	Visual Assessment: No Class I system is found in the building and No signage of Class II standpipe system is found.

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 NFPA requirements. Install required identification signs at the noted locations.
Suggested Deadline Date:	08 Aug 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:	1
Description:	Inspection, maintenance, and testing procedures of the fire pump are not documented and up to date.
Source of Findings:	Document Review: No document regarding inspection, maintenance and testing procedure of fire pump was found.
Suggested Plan of Action:	Establish NFPA-compliant inspection, maintenance, and testing program for the fire pump.
Suggested Deadline Date:	12 Dec 2014
Standard:	Reference NFPA 25 Chapter 8 Fire Pumps

Means of Egress

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:	3	
Description:	At ground floor level, there are 5 exits, 3 of which lead directly to street. Two of the exit discharges are not directly to the exterior of the building.	
Source of Findings:	Photograph: (1) Interior exit stair discharge; (2) Stair #2 discharge onto Ground Floor; (3) Stair #4 discharge onto Ground Floor, Visual Assessment: There are five sets of staircases available at main building. Two of them do not directly discharge to the exterior of the building.	
Suggested Plan of Action:	Provide rated exit passageway such that there is a protected path of egress from the exit enclosure to the public way. The rating of the exit passageway is to be equal to the fire rating requirement of the exit that is being served and shall not be less than 1 hr fire-resistance rated.	
Suggested Deadline Date:	19 Sep 2014	

Standard:	Alliance Standard Part 6 Section 6.17 Exit Discharge. See Section 16.7.2 and 16.7.3 for exceptions.	
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 is one exit access corridor serving an occupant load exceeding 30 that is not separated by walls with a fire resistance rating of 1 hr.	
Source of Findings:	Visual Assessment: Exit access corridor is not fire rated in main building.	
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. Window and glass block assemblies are to be tested for fire rating following NFPA requirements.	
Suggested Deadline Date:	19 Sep 2014	
Standard:	Alliance Standard Part 6 Section 6.3 and Part 4 Section 4.5. Does not apply if an automatic sprinkler system is installed throughout the building.	
Question:	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 hasps, locks, and slide bolts at non-rated exit doors. All doors were unlocked.	
Source of Findings:	Photograph: (1) Typical opening to stair; (2) Typical lock; (3) Provisions for lock on exit door from Stair #3, Visual Assessment: There are collapsible doors and hasps, locks, or slide bolts at non-rated exit doors.	
Suggested Plan of Action:	Remove all hasps, locks, slide bolts, or other locking devices at the noted locations. Doors may be locked where the latch and lock are disengaged with one motion where the occupant load does not exceed 49 persons. Turning a door handle and disengaging a lock is considered two motions. Doors may be provided with locking hardware from the ingress side provided that a panic bar is installed on any door with an occupant load exceeding 49 persons. Re-entry provisions must be met.	
Suggested Deadline Date:	11 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 and all the doors are not fire rated.
Source of Findings:	Visual Assessment: Door widths were found more than 0.8m.
Suggested Plan of Action:	Provide 1.5 hr certified fire rated doors in 2 hr fire rated exit enclosures in the main building.
Suggested Deadline Date:	19 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.

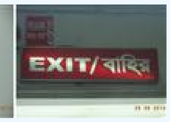
Question:	All doors in a means of egress are of the side-hinged swinging type.
Priority Level:	High
Non-Compliance Level:	3
Description:	All doors in a means of egress are not side-hinged swinging type.
Source of Findings:	Visual Assessment: All exit doors are steel sliding type.
Suggested Plan of Action:	Replace all collapsible gates in means of egresses with side-hinged swinging type fire doors of proper width and rating in accordance with Alliance Standards.
Suggested Deadline Date:	19 Sep 2014
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:	3
Description:	One exterior exit stair was found in the main building which was not separated from the building with the required rated separation.
Source of Findings:	Visual Assessment: One exterior exit stair was found in the main building.
Suggested Plan of Action:	Provide a fire-resistive rated assembly between the exterior exit stairs and the building to achieve the required separation in accordance with the Alliance Standard. The rated assembly should be approved and/or designed by a qualified fire protection engineer.

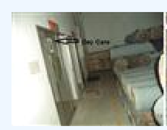
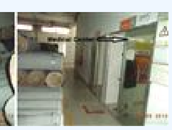
Suggested Deadline Date:	19 Sep 2014	
Standard:	Alliance Standard Part 6 Section 6.3.1.2. Three stories or less 1-hr rating. Four stories of more 2-hr rating	
Question:	Interior exit stairways and ramps terminate at an exit discharge except where terminating at a rated exit passageway.	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	At ground floor level, there are 5 exits, 3 of which lead directly to street. Two of the exits do not discharge directly to the exterior of the building.	
Source of Findings:	Visual Assessment: Two exits do not discharge directly to the exterior of the building.	
Suggested Plan of Action:	Provide a rated passageway, i.e. a protected path of egress from the exit enclosure to the public way. The rating of the exit passageway is to be equal to the fire rating requirement of the exit that is being served and shall not be less than 1 hr fire-resistance rated.	
Suggested Deadline Date:	19 Sep 2014	
Standard:	Alliance Standard Part 6 Section 6.14 Exit Enclosures	
Question:	Means of egress are free from impediments, obstructions, and stored materials.	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	Combustible materials were being stored in Stair #3.	
Source of Findings:	Photograph: Materials stored in Stair #3	
Suggested Plan of Action:	Remove all impediments, obstructions, and stored materials from the means of egress. Keep all elements of the means of egress (exit path, aisles, stairs, corridors, etc.) continuously free and clear of all obstructions in accordance with Alliance Standard Section 6.3.9.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.3.8 Impediments to means of egress and Section 6.3.9 Reliability	

Question:	Stairwells are not utilized as storage spaces.	 
Priority Level:	High	
Non-Compliance Level:	2	
Description:	Stair #3 was used for storage on the Ground Floor and the First Floor during the initial visit.	
Source of Findings:	Photograph: (1) Cardboard storage on the First Floor in Stair #3; (2) Storage on the Ground Floor in Stair #3	
Suggested Plan of Action:	Permanently remove all stored materials for the stairwells. Establish a housekeeping policy to keep all stairwells free.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 13 Section 13.9 Safety Inspections	
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 building is 7 stories, therefore a re-entry door needs to be installed in the building.	
Source of Findings:	Visual Assessment: Re-entry doors were not found.	
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, reentry 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:	19 Sep 2014	
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
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: Occupant loads are not posted in any assembly or 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:	25 Jul 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:	2
Description:	All paths of egress are not provided with compliant means of illumination. An insufficient number of emergency lights are in the main building.
Source of Findings:	Visual Assessment: Paths of egress are not provided with compliant means of illumination.
Suggested Plan of Action:	Install appropriate means of illumination at the noted locations. The source of illumination shall provide not less than 50 lux at the illuminated surface with a contrast of not less than 0.5. Approved self-luminous signs, which provide evenly illuminated letters having a minimum luminance of 0.2cd/m2, may also be used. 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:	12 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:	2
Description:	There was no documentation regarding periodical testing of emergency power for means of egress.
Source of Findings:	Document Review: Relevant documents were not found.
Suggested Plan of Action:	Develop a testing and maintenance program that ensures the operation of all exit signs is verified at least once per year. If battery-operated signs are used,

	these signs shall be tested on a monthly basis. Functional testing of battery powered signs shall be provided for a minimum 90 min once per year.	
Suggested Deadline Date:	25 Jul 2014	
Standard:	Alliance Standards Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape Lighting	
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 signs 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 of the Alliance Standards.	
Source of Findings:	Visual Assessment: Illuminated exit signs are only placed at entrances to exits.	
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 as per the Alliance Standard.	
Suggested Deadline Date:	12 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.11 Exit Signs	
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:	Visual Assessment: No plan or record of conducting periodic tests of the emergency battery backup for illumination of exit signs was found.	
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 must be tested on a monthly basis. Functional testing of battery powered signs must be provided for a minimum 90 min once per year.	
Suggested Deadline Date:	25 Jul 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:	2	
Description:	Handrails are not available on wall side of stairwells, which violates the Alliance Standard.	
Source of Findings:	Visual Assessment: No handrail was found on wall side of stairwells.	
Suggested Plan of Action:	Install handrails on both sides of the stairs in accordance with Alliance Standards.	
Suggested Deadline Date:	12 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.9 Stairs and 6.12 Handrails and Guards	
Question:	Exit signs have appropriate illumination levels and contrasting graphics.	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	Some exits signs do not have appropriate illumination levels and contrasting graphics as required.	
Source of Findings:	Visual Assessment: Some exit signs do not have appropriate illumination levels and contrasting graphics.	
Suggested Plan of Action:	Exit signs may be illuminated either by lamps external to the sign or by lamps contained within the sign. The source of illumination shall provide not less than 50 lux at the illuminated surface with a contrast of not less than 0.5. Approved self-luminous signs which provide evenly illuminated letters having a minimum luminance of 0.2cd/m2 may also be used.	
Suggested Deadline Date:	12 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:	Stair designation signs were not provided at each floor entrance from the stair to the floor in English and Bengali indicating the name of the stair and the floor	

	level.	
Source of Findings:	Visual Assessment: Stair designation signs were not provided at each floor.	
Suggested Plan of Action:	Install signage adjacent to each stair door indicating the stair name and the floor level in accordance with Alliance Standards.	
Suggested Deadline Date:	25 Jul 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:	3	
Description:	Some people are trained in fire fighting, first aid, and rescue training by Bangladesh Fire Service and Civil Defense. No certificate has been received.	
Source of Findings:	Document Review: Certificates of training personnel were not found.	
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:	12 Dec 2014	
Standard:	Alliance Standard Part 13 Human Element Programs	
Question:	Are there additional areas of non-compliance to report?	  
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	Both childcare and doctor's rooms are located inside fabric store at ground floor of the main building. Stair #2 has large windows installed at the landings which have an angular fire exposure to the adjoining wings of the building.	
Source of Findings:	Photograph: (1) Childcare and doctors rooms; (2) View of angular building exposure from Stair #2 windows	
Suggested Plan of Action:	Relocate the childcare and doctor rooms from fabric store with proper fire separation. Fill in the openings (windows) on the east side of the building in Stair 2 (from the top floor down to ground floor) with minimum 2-hr fire-resistance-rated construction to eliminate the exposure from the adjacent building exposures. Alternately, provide exposure opening protection for windows by means of roll-down shutters that cover each of the window openings. These shutters should be mounted on the inside and would normally be in the “open” position. Upon activation of any fire detection device in the building, the fire alarm control panel should be programmed to release these	

	shutters so that they will automatically close.	
Suggested Deadline Date:	17 Sep 2014	
Standard:	Not Applicable	
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 on a monthly basis 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 on monthly basis.	
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:	25 Jul 2014	
Standard:	Alliance Standards Part 13 Section 13.3 Fire Drills	
Question:	Storage areas underneath the cutting tables are clear of combustibles.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Storage areas underneath the cutting table were found occupied with combustibles.	
Source of Findings:	Visual Assessment: Combustible storage was found underneath the cutting tables.	
Suggested Plan of Action:	Remove all the combustible material underneath the cutting tables.	
Suggested Deadline Date:	23 Jul 2014	
Standard:	Alliance Standard Part 17 Section 13.7.2 Cutting tables.	
Question:	Training programs are implemented and documented in accordance with the Alliance Safety Training Curriculum.	
Priority Level:	Medium	
Non-Compliance Level:	2	

Description:	No record of training program was available in accordance with the Alliance Safety Training Curriculum on fire safety.
Source of Findings:	Document Review: No record of training program was available on fire safety.
Suggested Plan of Action:	Implement training program with proper documentation in accordance with the Alliance Safety Training Curriculum on fire safety.
Suggested Deadline Date:	25 Jul 2014
Standard:	Alliance Standards Part 13
Question:	A Fire Safety Director position has been filled.
Priority Level:	Low
Non-Compliance Level:	3
Description:	No viable documentation or physical presence of Fire Safety Director was noted. However factory has informed that they have a designated person for this.
Source of Findings:	Document Review: No related document 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:	12 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:	3
Description:	Fire department pre-planning was not found.
Source of Findings:	Document Review: No related document was found.
Suggested Plan of Action:	Complete fire department pre-planning activities with the local Fire Service and Civil Defense in accordance with the Alliance Standard.
Suggested Deadline Date:	25 Jul 2014
Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director

Question:	A written housekeeping policy is established and enforced.
Priority Level:	Low
Non-Compliance Level:	2
Description:	A written housekeeping policy was not found, which is required as per Alliance Standards.
Source of Findings:	Document Review: No documentation of a housekeeping policy was found.
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 m2 (500 ft2). Limit dense deposits to 6 mm (¼ in.) and oil saturated deposits to 3.2 mm (⅛ in.).
Suggested Deadline Date:	04 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:	2
Description:	No hot-work permit program is established. It is required as per Alliance Standards.
Source of Findings:	Document Review: A hot-work permit program was not found.
Suggested Plan of Action:	Hot-work is not going on in the factory, but a hot-work permit program needs to be established. It is required as per Alliance Standards.
Suggested Deadline Date:	12 Dec 2014
Standard:	Alliance Standards Part 13 Section 13.4 Hot Work Permit and NFPA 51B

Question:	Are all applicable permits up to date including Fire License & Boiler License.
Priority Level:	Low
Non-Compliance Level:	2
Description:	A BERC license is not available. The factory authority applied for a BERC waiver certificate on 3 January, 2013. Total capacity of generator is 1368 KW.
Source of Findings:	Document Review: BERC license is not available.
Suggested Plan of Action:	Obtain a BERC license from Bangladesh Energy Regulatory Commission.

Suggested Deadline Date:	23 Jul 2014	
Standard:	Alliance Standard Part 13 Human Element Programs	