INITIAL FIRE ASSESSMENT REPORT (FAR)

Factory Name:	**Karnaphuli Shoes Industries Ltd. (Garments)**
Address:	**Anowara, Plot # G1 and G2, Korean EPZ, Chittagong Chittagong Chittagong Bangladesh**
Assessor:	**Bureau Veritas**
Date:	**21 May 2015**

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:	Karnaphuli Shoes Industries Ltd. (Garments)
Address:	Anowara, Plot # G1 and G2, Korean EPZ, Chittagong Chittagong Chittagong Bangladesh
Country:	Bangladesh
Province:	Chittagong
City:	Chittagong
Zip Code:	
Audit Duration:	
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	02-23-2015
Final Report Date:	03-10-2015
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	There are twelve buildings, six Main Production Buildings and six Ancillary Buildings. 1) Main Production South Building-12; 2) Main Production Building-12, Prefab Shed; 3) Main Production North Building-12; 4) Main Production South Building-13; 5) Main Production Building-13, Prefab Shed; 6) Main Production North Building-13; 7) Security Building-1; 8) Security Building-2; 9) Substation Building; 10) Compressor Shed-12; 11) Compressor Shed-13; 12) Pump Building.
Is the building(s) owned or rented by the Factory:	Owned
Number of Building Levels (Stories):	1) Main Production South Building-12: 3-story; 2) Main Production Building-12, Prefab Shed: 1-story; 3) Main Production North Building-12: 3-story; 4) Main Production South Building-13: 3-story; 5) Main Production Building-13, Prefab Shed: 1-story; 6) Main Production North Building-13: 3-story.
Approximate Building Area (SF):	Total area: 257,807 SF. 1) Main Production South Building-12: 28,278 SF (9,426 SF each floor); 2) Main Production Building-12, Prefab Shed: 68,464 SF; 3) Main Production North Building-12: 28,278 SF (9426 SF each floor); 4) Main Production South Building-13: 28,278 SF (9426 SF each floor); 5) Main Production Building-13, Prefab Shed: 68,464 SF, 6) Main Production North Building-13: 28,278 SF (9426 SF each floor); 7) Security Building-1: 587 SF, 8) Security Building-2: 587 SF, 9) Substation Building: 4800 SF, 10) Compressor Shed-12: 602 SF, 11) Compressor Shed-13: 602 SF, 12) Pump Building: 589 SF.
Date of Building Construction:	1) Main Production Building-12 (all 3 elements): December-2012 to November-2013; 2) Main Production Building-13 (all 3 elements): December-2012 to November-2013; 3) Security Buildings-1 and -2: December-2012 to January-2013; 4) All other buildings: October-2013 to November-2013.

Date of Last Building Renovation/Addition:	None.
Ancillary Structures in Complex:	1) Security Building-1; 2) Security Building-2; 3) Substation Building; 4) Compressor Shed-12; 5) Compressor Shed-13; 6) Pump Building.
Approximate Ancillary Structures Area (SF):	Total Ancillary Building area: 7,767 SF. 1) Security Building-1: 587 SF, 2) Security Building-2: 587 SF, 3) Substation Building: 4800 SF, 4) Compressor Shed-12: 602 SF, 5) Compressor Shed-13: 602 SF, 6) Pump Building: 589 SF.
Number of Occupants:	Total number of occupants: 4016. 1) Main Production South Building-12: 150 (50 each floor); 2) Main Production Building-12, Prefab Shed: 1700; 3) Main Production North Building-12: 150 (50 each floor); 4) Main Production South Building-13: 150 (50 each floor); 5) Main Production Building-13, Prefab Shed: 1700; 6) Main Production North Building-13: 150 (50 each floor); 7) Security Building-1: 5; 8) Security Building-2: 5; 9) Substation Building: 3; 10) Compressor Shed-12: 1; 11) Compressor Shed-13: 1; 12) Pump Building: 1.
Number of Ancillary Levels (Stories):	1) Security Building-1: 1-story; 2) Security Building-2: 1-story; 3) Substation Building: 1-story; 4) Compressor Shed-12: 1-story; 5) Compressor Shed-13: 1-story; 6) Pump Building: 1-story.
Occupancy Type:	1) Main production building-12; Three story building (south part): [Ground floor: F1 (CAD room, conference room), G2 (Sewing section), E4 (SAP class room,capacity-20), 1st floor: E4 (Tea room), F1 (Office), 2nd floor: F1 (IT office, server room), E4 (Training room, capacity-10)], 2) Main production building-12; Single story prefab shed: G2 (Sewing, sample, embroidery, cutting), H2 (MCD fabric warehouse/store) 3) Main production building-12; Three story building (north part): (Ground floor: F1 (Office), G2 (Finished goods area), K1 (Maintenance room), 1st floor: F1 (Office), 2nd floor: H2 (Empty cartoon store), 4) Main production building-13; Three story building (south part): (Ground floor: F1 (CAD room), G2 (Fabric relaxation), D1 (Medical room), 1st floor: H2 (Fabric store), 2nd floor: H2 (Fabric store), 5) Main production building-13; Single story prefab shed: G2 (Sewing, sample, embroidery), H2 (MCD fabric warehouse/store) 6) Main production building-13; Three story building (north part): (Ground floor: F1 (Office), G2 (Finished goods area), K1 (Maintenance room), 1st floor: F1 (Office), 2nd floor: F1 (Office), 7) Single story security building-1: F1 (Security office), 8) Single story security building-2: F1 (Security office), 9) Single story substation building: K (Generator, oil filled transformer), J1 (Diesel storage), 10) Single story compressor shed-12: K (Compressor), 11) Single story compressor shed-13: K (Compressor), 12) Single story pump building: K (Fire pump).
Construction Type:	1) Main Production South Building-12: Type 1; 2) Main Production Building-12, Prefab Shed: Non-rated; 3) Main Production North Building-12: Type 1; 4) Main Production South Building-13: Type 1; 5) Main Production Building-13, Prefab Shed: Non-rated; 6) Main Production North Building-13: Type 1; 7) Security Building-1: Type 1; 8) Security Building-2: Type 1; 9) Substation Building: Type 1; 10) Compressor Shed-12: Non-rated; 11) Compressor Shed-13: Non-rated; 12) Pump Building: Type 1.
Height of Highest Occupied Floor Level Above Grade:	1) Main Production South Building-12: 8.48 m (27.83 ft); 2) Main Production Building-12, Prefab Shed: at grade; 3) Main Production North Building-12: 8.48 m (27.83 ft); 4) Main Production South Building-13: 8.48 m (27.83 ft); 5) Main Production Building-13, Prefab Shed: at grade; 6) Main production North Building-13: 8.48 m (27.83 ft); 7) Security Building-1: at grade; 8) Security Building-2: at grade; 9) Substation Building: at grade; 10) Compressor Shed-12: at grade; 11) Compressor Shed-13: at grade; 12) Pump Building: at grade.

ASSESSMENT FINDINGS

Fire Protection Construction

Question:	Are exit enclosures provided with fire-resistive rated construction barriers?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	There are 2 stairs in each of the 3 story buildings (North and South) of Building-12 & Building-13. The walls of the exit enclosures are at least 1 hr fire rated, but none of these stairs are provided with proper opening protection. Fire doors are not installed at any of these stairs, only glass swinging doors are provided at these exits.	
Source of Findings:	Photograph: North west stair with glass swing door at 2nd floor of South Building-12.	
Suggested Plan of Action:	Provide associated opening protection for exit enclosures in accordance with Alliance Standard Sections 4.5 and 4.6. Consult a qualified fire protection engineer to design the required opening protection systems.	
Suggested Deadline Date:	29 Jan 2016	
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation	
Question:	Are openings and penetrations through rated walls and/or assemblies protected?	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	Unprotected openings were found in the wall separating the sub-station building from the diesel storage tanks. Four diesel storage tanks (MS tank) with 5000 liter capacities are located 3 ft away from substation building.	
Source of Findings:	Photograph: Unprotected openings.	
Suggested Plan of Action:	Provide fire-resistive rated opening protection for rated walls and assemblies in accordance with Alliance Standard Sections 4.6. Consult a qualified fire protection engineer to design the required opening protective systems.	
Suggested Deadline Date:	29 Jan 2016	
Standard:	Includes doors, windows, ducts, piping, etc. Reference Alliance Standards Part 4 Section 4.6 Opening Protectives and Section 4.7 Penetrations	

Question:	Are separations between hazards provided with fire-resistive rated construction barriers.
Priority Level:	Medium
Non-Compliance Level:	2
Description:	MCD fabric warehouse on ground floor in prefab sheds of Buildings 12 & 13 is separated from nearest sewing section by wire mesh. The compressors sheds (12 & 13) are separated from the prefab shed of Buildings 12 & 13 by a steel sheet on top of low height brick wall. Four diesel storage tanks 5000 liter with capacities are located adjacent to sub-station building without a fire resistive rated construction barrier. The wall separating the office area (CAD room & conference room) from sewing section (as office area is 11.90% of production area) at ground floor in Main Production South Building-12 is made of glass.
Source of Findings:	Photograph: Non rated fire separation 1) Compressor, 2) Diesel Storage, 3) Fabric Warehouse, 4) Office Space.
Suggested Plan of Action:	Provide fire-resistive rated construction barriers (with associated opening protection) between hazard types in accordance with Alliance Standard Sections 3.4 and 4.5. Consult a qualified fire protection engineer to design the required rated construction barrier.
Suggested Deadline Date:	29 Jan 2016
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:	Occupancy certificate for the buildings in the factory premises was not found.
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 appropriate authority in an expeditious manner for issuance of the Certificates of Occupancy for each building and ancillary structure according to building use.
Suggested Deadline Date:	04 Dec 2015
Standard:	Are certificates of occupancy provided for each building or ancillary structure?

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:	2
Description:	Pull stations are adequately located at egress points in all the buildings except Buildings-12 & 13 (North and South). In all floors of those buildings a pull station is provided at one exit out of the two exits. Smoke detectors are inadequate in number on all floors of all buildings. There is central fire alarm control panel. Other visual and audible devices are placed where required but an approved shop drawing for fire alarm system was not found.
Source of Findings:	Photograph: 1) Bay without smoke detector, 2) Centralized smoke detector, 3) Egress point with pull station, 4) Egress point without pull station.
Suggested Plan of Action:	Install initiating devices and notification appliances as required by the Alliance Standard and NFPA 72. This includes electrical supervision of all valves controlling fire protection systems (fire pumps, etc.). Connect devices to an automatic fire alarm and detection system for the facility. All fire alarm installations or modifications shall be submitted for review by the Alliance prior to commencement of installation.
Suggested Deadline Date:	29 Jan 2016
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 portable fire extinguishers installed throughout the building at required locations and mounted at the correct height?
Priority Level:	Medium
Non-Compliance Level:	2
Description:	Extinguishers installed on the 2nd floor of Building-12 (North and South) are placed so that maximum travel distance to the nearest unit exceeds 30 m (100 ft). Moreover all the portable fire extinguishers in all Type 1 Buildings are not properly mounted and are placed on the floor. Portable fire extinguishers in prefab sheds are installed at 5 ft or 3.5 ft maximum height above floor.
Source of Findings:	Photograph: (1) Travel distance exceeds for extinguisher,(2) extinguisher on floor, (3) extinguisher placed on correct height.
Suggested Plan of Action:	Install fire extinguishers at locations and heights in accordance with BNBC Part 4 and NFPA 10.


Suggested Deadline Date:	04 Dec 2015	
Standard:	BNBC Part 4 Section 4.10 and NFPA 10	
Question:	Fire extinguishers are inspected, tested, and maintained as required.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Extinguishers are inspected monthly by factory personnel, 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.	
Source of Findings:	Document Review: Relevant documents are not compliant with NFPA 10., Photograph: Fire extinguisher checklist.	
Suggested Plan of Action:	Establish an inspection, testing, and maintenance program for all fire extinguishers and prepare proper documentation. Program must comply with NFPA 10.	
Suggested Deadline Date:	04 Dec 2015	
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:	1	
Description:	Automatic fire alarm and detection system is currently being installed in the factory, but currently there is no monitoring company in Bangladesh. Fire service and civil defence is not also capable of monitoring fire alarm and detection systems of the factories.	
Source of Findings:	Photograph: Centralized fire alarm control panel	
Suggested Plan of Action:	Once system installation is complete, arrange for direct connection of the fire alarm and detection system to a central station monitoring service or the Fire Service and Civil Defence as per Alliance Standard Section 5.7.5. Until that time, a person trained to contact the Fire Service and Civil Defence in the event of fire alarm activation shall be provided. An annunciator shall be located in a constantly attended location (such as a fire control room) to alert this person.	
Suggested Deadline Date:	04 Dec 2015	
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:	Standpipe system is not required per Alliance Standard. However, there is an existing Class-II standpipe system installed. No testing and maintenance plan or records were found.	
Source of Findings:	Document Review: No document regarding inspection, maintenance and testing procedures of standpipe and hose system as per NFPA 25 was found among the documents shown by the factory personnel.	
Suggested Plan of Action:	Establish an inspection, testing, and maintenance program for the existing standpipe system. Program must comply with NFPA 25.	
Suggested Deadline Date:	04 Dec 2015	
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:	Signage for the installed standpipe system was not installed at required locations.	
Source of Findings:	Photograph: Signage for the installed standpipe system was not installed.	
Suggested Plan of Action:	Install signage at required locations and on required equipment. Signage must comply with NFPA 14.	
Suggested Deadline Date:	04 Dec 2015	
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 were available, but not maintained in accordance with NFPA 25.	
Source of Findings:	Photograph: Fire pump inspection, maintenance and testing procedures.	

Suggested Plan of Action:	Establish an inspection, testing, and maintenance program for the fire pump. Program must comply with NFPA 25.	
Suggested Deadline Date:	04 Dec 2015	
Standard:	Reference NFPA 25 Chapter 8 Fire Pumps	
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 glass swinging doors with locking arrangements at each egress location of Building-12 & -13 (North and South) and steel sliding doors with locking arrangements at each egress location in prefab sheds of Building-12 & -13.	
Source of Findings:	Photograph: 1) Glass door with locking arrangement, 2) sliding door with locking arrangement	
Suggested Plan of Action:	Remove all locking devices from all egress doors and means of egress components in accordance with Alliance Standard Section 6.8. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	
Suggested Deadline Date:	04 Dec 2015	
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
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:	All of the interior exit stairways of Buildings-12 and -13 (North and South) terminate at a non-rated exit passageway. There is no wall to provide fire separation from the production floor. Exit discharges are directly to the exterior of the building in prefab sheds and do not re-enter a building.	
Source of Findings:	Photograph: 1) Exit discharge is directly to the exterior of the building, terminated at an non-rated passageway.	
Suggested Plan of Action:	Route exits directly to the exterior or provide an exit passageway in accordance with Alliance Standard Section 6.15 for non-compliant arrangements. Consult a qualified fire protection engineer to design and/or approve the required exit passageway.	

Suggested Deadline Date:	29 Jan 2016	
Standard:	Alliance Standard Part 6 Section 6.17 Exit Discharge. See Section 16.7.2 and 16.7.3 for exceptions.	
Question:	Means of egress are free from impediments, obstructions, and stored materials.	 
Priority Level:	High	
Non-Compliance Level:	2	
Description:	In the prefab sheds of Buildings-12 & -13 aisles are blocked by fabric. Thread spools are piled up on the floor landing of north west stairway at 2nd floor of South Building-13.	
Source of Findings:	Photograph: 1) Aisle obstructed by fabric, 2) stair obstructed by thread storage.	
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:	23 Oct 2015	
Standard:	Alliance Standard Part 6 Section 6.3.8 Impediments to means of egress and Section 6.3.9 Reliability	
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:	2	
Description:	All door widths are more than 0.8 m, but fire doors are not provided at the required locations. There are 2 stairs in Buildings-12 & -13 (North and South). No fire doors are installed in the stairwells of these buildings. Moreover sliding type doors are provided at exits of prefab sheds.	
Source of Findings:	Photograph: No fire door is installed at exits of stair.	
Suggested Plan of Action:	Replace non-compliant doors and frames in the means of egress with side-swinging doors. Replacement doors shall be a minimum width of 0.8 m (32 in), and are listed, approved, self-closing, fire rated door assemblies (door and frame) with latching panic hardware.	
Suggested Deadline Date:	04 Dec 2015	
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:	2
Description:	All doors in the means of egress are of the side-hinged swinging type in Buildings-12 & -13 (North and South). All doors in the means of egress in the prefab sheds of Buildings-12 & -13 are of the sliding type.
Source of Findings:	Photograph: Sliding type door at prefab shed.
Suggested Plan of Action:	Replace non-compliant doors and frames in the means of egress with side-swinging doors. Replacement doors shall be a minimum width of 0.8 m (32 in), and are listed, approved, self-closing, fire rated door assemblies (door and frame) with latching panic hardware.
Suggested Deadline Date:	04 Dec 2015
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates

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:	2
Description:	The exit discharge from interior exit stairways of Buildings-12 & -13 (North and South) terminate at a non-rated exit passageway.
Source of Findings:	Photograph: 1), 2), 3) Exit stairway with open in separating wall.
Suggested Plan of Action:	Route exits directly to the exterior or provide an exit passageway in accordance with Alliance Standard Section 6.15 for non-compliant arrangements. Consult a qualified fire protection engineer to design and/or approve the required exit passageway.
Suggested Deadline Date:	29 Jan 2016
Standard:	Alliance Standard Part 6 Section 6.14 Exit Enclosures

Question:	Stairwells are not utilized as storage spaces.
Priority Level:	High
Non-Compliance Level:	2
Description:	Thread spools are piled up on the floor landing of north west stairway at 2nd floor of South Building-13.
Source of Findings:	Photograph: Stair obstructed by thread storage.
Suggested Plan of	Remove all stored materials from the stairwells.

Action:		
Suggested Deadline Date:	30 Oct 2015	
Standard:	Alliance Standard Part 13 Section 13.9 Safety Inspections	
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:	1	
Description:	Aisle width at sewing section in prefab shed of Buildings-12 & 13 was found to be 0.58 m.	
Source of Findings:	Photograph: 1) Aisle width was measured during assessment., Visual Assessment: (2) Visually obstruction found in aisles but from measurement and calculation, total width is found sufficient.	
Suggested Plan of Action:	Provide proper aisles marking (clear width minimum 36 in.) and keep aisles free of storage. Relocate the machines, if necessary, to provide proper width. The path of egress travel along a means of egress shall not be interrupted by any obstruction. The capacity of the means of egress shall not be reduced along the path of travel.	
Suggested Deadline Date:	04 Dec 2015	
Standard:	Higher occupancy loads will require a greater width to accommodate the increased load. Alliance Standard Part 6 Section 6.5 Egress Width	
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 for any assembly or production floor area.	
Source of Findings:	Photograph: Occupant loads are not posted., Visual Assessment: During site tour, occupant loads found not posted in all assembly.	
Suggested Plan of Action:	Post the occupant load for all assembly and production floor areas in a conspicuous space near the main exit or exit access doorway for the space in accordance with Alliance Standard Section 6.4.4.	
Suggested Deadline Date:	04 Dec 2015	
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. Ordinary CFL bulbs are used as emergency lights in some areas, which do not provide sufficient illumination.
Source of Findings:	Photograph: No emergency light over aisles, no emergency light at exit.
Suggested Plan of Action:	Install emergency lighting for all paths of egress in accordance with Alliance Standard Section 6.7. Illumination needs to be a minimum of 10 lux for all corridors, exit doors and stairways. Illumination for aisles needs to be a minimum of 2.5 lux. Egress lighting shall be provided with emergency power or supplemented with battery powered lights that provide a minimum of 10 lux for not less than 30 mins in the event of failure of normal lighting.
Suggested Deadline Date:	29 Jan 2016
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:	Weekly record of verifying existing battery backup power (Fog light) for means of egress illumination is present but not maintained per Alliance Standards Part 10 Section 10.12.2.3. No record found for emergency power testing for means of egress illumination.
Source of Findings:	Photograph: Checklist for emergency light.
Suggested Plan of Action:	Develop a testing and maintenance program that ensures the emergency power for all egress lighting is verified at least once per year. If battery-operated lights are used, these lights shall be tested on a monthly basis. Functional testing of battery powered lights shall be provided for a minimum 90 min once per year.
Suggested Deadline Date:	04 Dec 2015
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 the exits, but not where there is a change in direction and where the continuation of egress is not obvious.
Source of Findings:	Photograph: No exit sign provided at change in direction of egress path.
Suggested Plan of Action:	Provide continuously illuminated exit signs per Alliance Standard Section 6.11. Signs shall be placed at all required exits and along egress paths, especially where there is a change in direction for the path of travel.
Suggested Deadline Date:	04 Dec 2015
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:	Weekly record of testing IPS backup power for exit signs was found but not maintained as required in section 10.12.1.4 of Alliance Standard.
Source of Findings:	Photograph: Checklist for exit sign backup power
Suggested Plan of Action:	Develop a testing and maintenance program that ensures the emergency power for exit signs is verified at least once per year. If battery-operated signs are used, these signs shall be tested on a monthly basis. Functional testing of battery powered signs shall be provided for a minimum 90 min once per year.
Suggested Deadline Date:	04 Dec 2015
Standard:	Alliance Standard Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape.

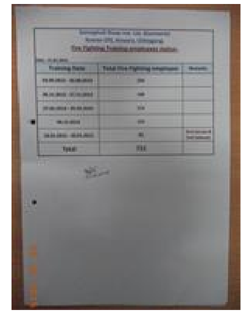
Question:	Stair designation signs are provided at each floor entrance from the stair to the floor in English and Bengali. Signs indicate the name of the stair and the floor level. Signs are posted adjacent to the door.
Priority Level:	Low
Non-Compliance Level:	3
Description:	Stair designation signs are not provided.

Source of Findings:	Photograph: Stair designation sign and floor level is not mentioned
Suggested Plan of Action:	Install signage adjacent to each stair door indicating the stair name and the floor level in both English and Bengali.
Suggested Deadline Date:	04 Dec 2015
Standard:	Alliance Standard Part 6 Section 6.9 Stairs

Question:	Exit signs have appropriate illumination levels and contrasting graphics.
Priority Level:	Low
Non-Compliance Level:	1
Description:	All exit signs do not have appropriate illumination level or contrasting graphics. Exit sign at 2nd floor of South Building-13 was found to not be properly illuminated. At other exits, illuminations of exit signs were found to be more than 50 lux as tested by lux meter.
Source of Findings:	Photograph: Exit sign.
Suggested Plan of Action:	Provide continuously illuminated exit signs at all required exits and along egress paths, especially where path has a change of direction. Exit signs may be illuminated either by lamps exterior to the sign or 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 0.2 cd/m2 may also be used.
Suggested Deadline Date:	04 Dec 2015
Standard:	Alliance Standard Part 10 Section 10.12.1 Exit Signs

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:	Record kept by the factory shows that 751 workers had been trained by Fire Service & Civil Defence but no certificate had been issued till the day of audit.

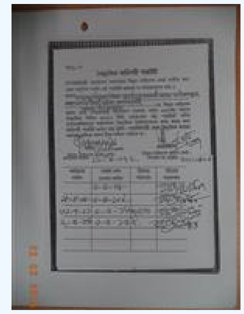
Source of Findings:	Photograph: 1) Training list of fire fighter, 2) number of trainee	
Suggested Plan of Action:	Provide training and certification for the required number of people (25% of total workers) in fire fighting, first aid, and rescue training by an appropriate authority in accordance with the Alliance Safety Training Curriculum.	
Suggested Deadline Date:	29 Jan 2016	
Standard:	Alliance Standard Part 13 Human Element Programs	
Question:	Training programs are implemented and documented in accordance with the Alliance Safety Training Curriculum.	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	No document of any training program in accordance with the Alliance Safety Training Curriculum found.	
Source of Findings:	Document Review: Alliance safety training curriculum was not found among the documents shown by factory personnel.	
Suggested Plan of Action:	Implement training programs and document in accordance with the Alliance Safety Training Curriculum.	
Suggested Deadline Date:	04 Dec 2015	
Standard:	Alliance Standards Part 13	
Question:	Fire Drills are conducted at required intervals based on building use type.	 
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Fire drills are conducted monthly in all buildings but not under the direction of a Fire Safety Director. Fire drill plan & checklist was also not available.	
Source of Findings:	Document Review: No document regarding fire drill plan and presence of fire safety director has been found among the documents shown by factory personnel., Photograph: (1) (2) (3) Fire drill record	
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 Part 4 Appendix A.	

Suggested Deadline Date:	04 Dec 2015	
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:	Fabrics were found stored underneath the cutting tables of cutting section at ground floor in the prefab shed of Building-12.	
Source of Findings:	Photograph: Storage underneath the cutting table.	
Suggested Plan of Action:	Remove all combustibles stored underneath the cutting tables.	
Suggested Deadline Date:	30 Oct 2015	
Standard:	Alliance Standard Part 17 Section 13.7.2 Cutting tables.	
Question:	Emergency egress maps are posted at the entrance to each exit stair or main point of egress.	 
Priority Level:	Medium	
Non-Compliance Level:	1	
Description:	Emergency egress maps are not posted on the 2nd & ground floors of Buildings-12 & -13. Emergency egress maps were found posted at the entrance to exit stairs in other floors of all buildings.	
Source of Findings:	Photograph: 1) Exit with egress map, 2) Exit without egress map	
Suggested Plan of Action:	Post emergency evacuation maps at the entrance to each stair or main point of egress.	
Suggested Deadline Date:	04 Dec 2015	
Standard:	Alliance Standards Part 13 Section 13.4 Evacuation Plan	
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 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 Defence in accordance with Alliance Standard Section 13.1.1(2).
Suggested Deadline Date:	04 Dec 2015
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:	3
Description:	Written housekeeping policy was not found.
Source of Findings:	Document Review: No document regarding housekeeping policy was 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.
Suggested Deadline Date:	04 Dec 2015
Standard:	Alliance Standards Part 13 Section 13.6 Housekeeping
Question:	A Fire Safety Director position has been filled.
Priority Level:	Low
Non-Compliance Level:	2
Description:	No viable documentation and physical presence of Fire Safety Director was noted. However factory indicated that they have a designated person.
Source of Findings:	Document Review: No record of filling the position of fire safety director was found.
Suggested Plan of Action:	Create a Fire Safety Director position and fill the position with an individual that has sufficient training to be able to carry out the required duties in accordance with Alliance Standard Section 13.1.
Suggested Deadline Date:	04 Dec 2015
Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director
Question:	A hot-work permit program has been established.
Priority Level:	Low

Non-Compliance Level:	2
Description:	Hot work permit program is not established. It is required as per Alliance Standards Part 13 Section 13.4. Construction work is going on in the factory premises where hot work like welding, cutting are practiced.
Source of Findings:	Document Review: No hot work permit could be presented by the factory personnel.
Suggested Plan of Action:	Develop and implement a hot work permit program. The program must comply with the requirements of NFPA 51B.
Suggested Deadline Date:	04 Dec 2015
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:	There is no boiler, so boiler license is not applicable. Export Promotion Bureau certificate, factory license (photocopy), fire license (License available over area 526,115 SF & constructed area is 257,807 SF) and electrician license (photocopy) are available and up-to-date. Main building-12, Main building-13 and some ancillary buildings are approved by General Manager, Korean EPZ Corporation (BD) Ltd on date 13.03.2013. But approval of Compressor Shed-12 & -13 was not available in the approved plan. There are 3 diesel generators with 1.5 MW capacity each and one diesel generator with 32 KW capacity, but no BERC license available for those generators. There are 4 diesel storage tanks of 5000 liter capacity each, but no license for storage of Class II petroleum available for this amount of diesel storage.
Source of Findings:	Photograph: Electrician license, factory license, trade license, fire license are found and up-to-date.
Suggested Plan of Action:	Apply to Korean EPZ Corporation (BD) Ltd for approval of the unapproved ancillary sheds. Apply to Bangladesh Energy Regulatory Commission for BERC license. Apply to Bangladesh Explosive Department for storage of Class II petroleum (Diesel) as per Petroleum Act 1934.
Suggested Deadline Date:	04 Dec 2015
Standard:	Alliance Standard Part 13 Human Element Programs

		 
Question:	Smoking is only allowed at designated areas.	
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	Smoking is prohibited per verbal information of factory personnel but no signs prohibiting smoking are posted at any building entrances. Moreover, no designated smoking area is created outside the buildings.	
Source of Findings:	Visual Assessment: During site tour, no smoking signs were found and no designated areas for smoking were observed.	
Suggested Plan of Action:	Smoking is prohibited in garment factory buildings or similar uses. Post "No Smoking" signs in English and Bengali at all building entrances. If the Owner designates a smoking area outside the building, information on the location of these areas shall be posted on the "No Smoking" signs.	
Suggested Deadline Date:	30 Oct 2015	
Standard:	Alliance Standards Part 13 Section 13.5 Smoking	