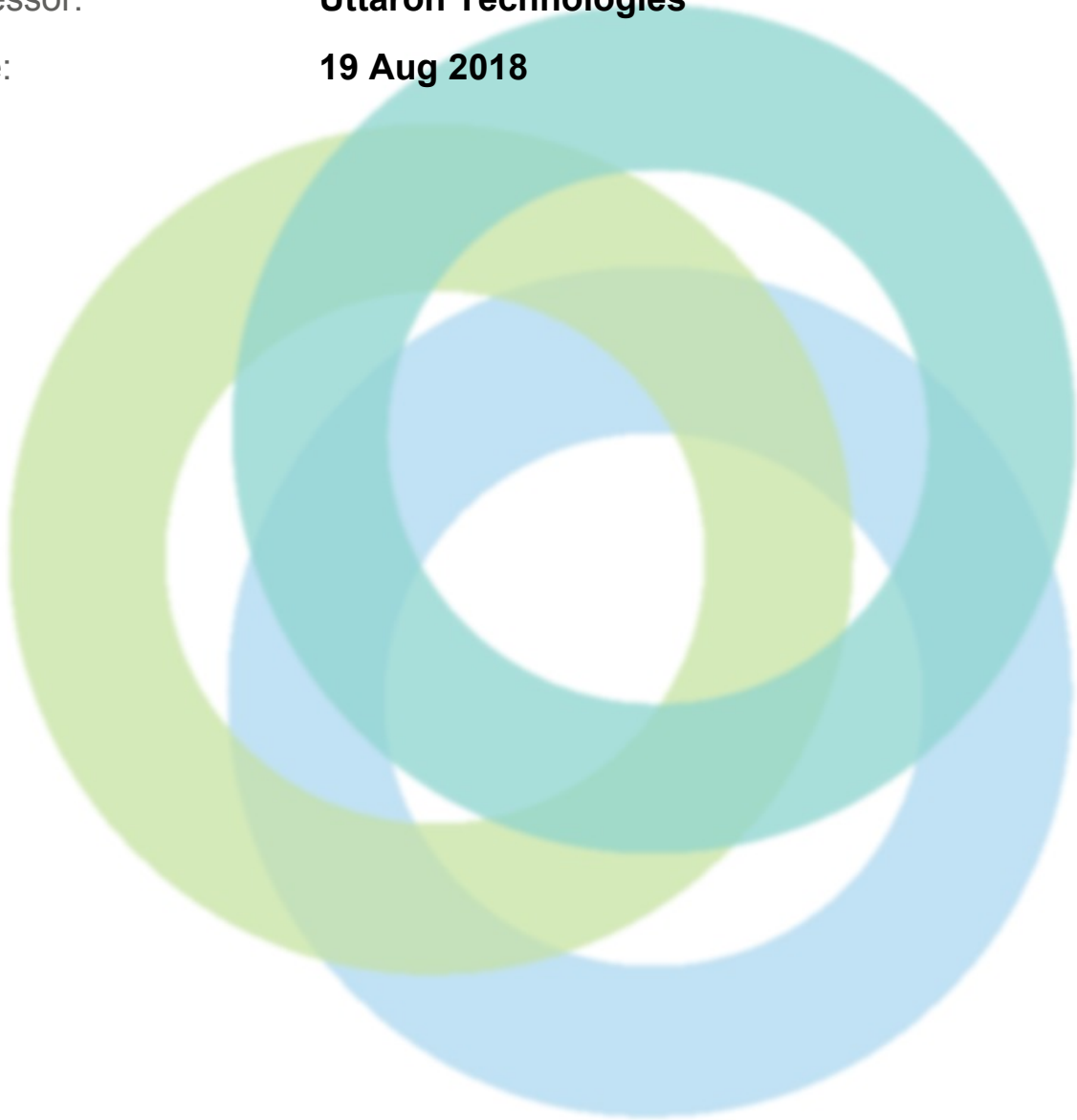


INITIAL FIRE SAFETY ASSESSMENT

Factory Name: **MHC Apparels (Pvt.) Ltd.**
Address: **Holding-297/1, Block-B Ward# 4, Vangnahati, Sreepur
Gazipur Dhaka Bangladesh**
Assessor: **Uttaron Technologies**
Date: **19 Aug 2018**



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:	MHC Apparels (Pvt.) Ltd.
Address:	Holding-297/1, Block-B Ward# 4, Vangnahati, Sreepur Gazipur Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Gazipur
Zip Code:	1704
Audit Duration:	1 Days 0 Hours
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	20 August 2018
Final Report Date:	9 September 2018
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	There are 3 buildings in the complex, out of them one is main building and two are ancillary structures as per information given by the owner's representative. In this Initial expansion audit, 6 Storied Garments Building (Building_01) and two ancillary structures [4 Storied Dining Building (Building_02) and 2 Storied Energy Building (Building_03)] have been assessed. Main Building: - 1. 6 Storied Garments Building (Building_01) - This Building is in our scope of audit. Ancillary Building: - 1. 4 Storied Dining Building (Building_02)- This Building is in our scope of audit. 2. 2 Storied Energy Building (Building_03)- This Building is in our scope of audit
Is the building(s) owned or rented by the Factory:	Owned
Number of Building Levels (Stories):	1. Garments Building (Building_01)= Six Storied (G+5), RCC.
Approximate Building Area (SF):	6 Storied Garments Building (Building_01)= Total area is 188,157 sft. =GF 31,359.5 sft. + 1st Floor 31,359.5 sft. + 2nd Floor 31,359.5 sft. + 3rd Floor 31,359.5 sft. + 4th Floor 31,359.5 sft. + 5th Floor 31,359.5 sft.
Date of Building Construction:	1. 6 Storied Garments Building (Building_01)= Year of construction 2015 2. 4 Storied Dining Building (Building_02)= Year of construction 2016 3. 2 Storied Energy Building (Building_03)= Year of construction 2016
Date of Last Building Renovation/Addition:	There is no renovation or additional work has been done after construction of newly built Garments Building (Building_01), Dining Building (Building_02) and Energy Building (Building_03).
Ancillary Structures in Complex:	There are two ancillary structures assessed in this visit. 1. 4 Storied Dining Building (Building_02). 2. 2 Storied Energy Building (Building_03).
Approximate Ancillary Structures Area (SF):	1. 4 Storied Dining Building(Building_02)- Total Area is 12,306 sft.= GF 3,076.5 sft. + 1st Floor 3,076.5 sft. + 2nd Floor 3,076.5 sft. + 3rd Floor 3,076.5 sft. 2. 2 Storied Energy Building (Building_03)- Total Area is

	4,542 sft.= GF 2,271 sft. + 1st Floor 2,271 sft.
Number of Occupants:	As per information received from Factory, number of occupants in 6 Storied Garments Building (Building_01), 4 Storied Dining Building (Building_02) and 2 Storied Energy Building (Building_03) under this audit is total number of occupants approximately -(1,874+570+3) = 2,447 Persons 1. 6 Storied Garments Building (Building_01) approximately 1,874 Persons= GF 47 Persons + 1st Floor 160 Persons + 2nd Floor 580 Persons + 3rd Floor 555 Persons + 4th Floor 261 Persons + 5th Floor 271 Persons. 2. 4 Storied Dining Building (Building_02) approximately 570 Persons= GF 5 Persons + 1st Floor 5 Persons + 2nd Floor 280 Persons (Floating) + 3rd Floor 280 Persons (Floating). 3. 2 Storied Energy Building (Building_03) approximately 3 Persons= GF 3 Persons + 1st Floor 0 Person.
Number of Ancillary Levels (Stories):	Total 2 nos. of Ancillary Structures: 1. 4 Storied Dining Building (Building_02)= = Four Storied (G+3), R.C.C 2. 2 Storied Energy Building (Building_03)= Two Storied (G+1), R.C.C
Occupancy Type:	1. 6 Storied Garments Building (Building_01) = Ground Floor H2 and F1 + Rest of the Floor G2 (Production Floor). 2. 4 Storied Dining (Building_02)= Ground Floor C1 and D1 + 1st Floor F1 + 2nd Floor E3 + 3rd Floor E3. 3. 2 Storied Energy Building (Building_03)= GF K1 + 1st Floor K1.
Construction Type:	Buildings are constructed by R.C.C slabs, beams, columns and tie beams supported by cast in situ piles. 1. Garments Building (Building_01) = Type 2 rated. 2. Storied Dining Building (Building_02)= Type 2 rated. 3. Energy Building (Building_03)= Type 2 rated.
Height of Highest Occupied Floor Level Above Grade:	1. 6 Storied Garments Building (Building_01)= 68 ft. 2. 4 Storied Dining Building (Building_02)= 32 ft. 3. 2 Storied Energy Building (Building_03)= 15 ft.



ASSESSMENT FINDINGS

Fire Protection Construction

Question:	Are openings and penetrations through rated walls and/or assemblies protected?
Priority Level:	High
Non-Compliance Level:	2
Description:	All the openings were found fire rated but penetrations have been seen around the BBT Riser which is vertically connected to all floors of "Garments building 01".
Source of Findings:	Visual Assessment: Penetrations (holes) through fire-rated assemblies are not properly sealed with firestop system at "Garments building 01".
Suggested Plan of Action:	Provide fire-resistive rated penetration protection for rated walls and assemblies in accordance with Alliance Standard Sections 4.6 and 4.7. Consult a qualified fire protection engineer to design the required penetration systems.
Suggested Deadline Date:	09 Sep 2018
Standard:	Includes doors, windows, ducts, piping, etc. Reference Alliance Standards Part 4 Section 4.6 Opening Protectives and Section 4.7 Penetrations
Question:	Certificates of Occupancy for each building have been issued and are on file.
Priority Level:	Low
Non-Compliance Level:	1
Description:	A certificate of occupancy is evidence that the building complies substantially with the plans and specifications that have been submitted to, and approved by the local authority as per law of land. Certificates of occupancy was not available during visit.
Source of Findings:	Visual Assessment: Certificates of occupancy was not available during visit.
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:	19 Oct 2018
Standard:	Are certificates of occupancy provided for each building or ancillary structure?



Fire Protection Systems



Question:	Does the building have a Standpipe System?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Standpipe systems have installed throughout the facility. But the proposed design was not reviewed/approved by Alliance. Standpipe System installation is done but Commissioning and Testing are not done yet.	
Source of Findings:	Visual Assessment: Standpipe System has been seen on site during the assessment.	
Suggested Plan of Action:	Complete Commissioning and Testing of standpipe system by a qualified fire protection engineer. Standpipe system must comply with the requirements of NFPA 14.	
Suggested Deadline Date:	30 Sep 2018	
Standard:	Does the building have a standpipe system installed where required. Alliance Standard Part 5 Section 5.4.2	
Question:	Trouble or alarm notifications were not indicated on the fire alarm control panel.	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Trouble alarm notifications were indicated on the fire alarm control panel at normal condition. The system has been found faulty and numbers of trouble alarms indicated without any valid reasons.	
Source of Findings:	Visual Assessment: The automatic fire alarm system installation is going on	
Suggested Plan of Action:	Install an automatic fire alarm and detection system for the facility and its need to be free from faulty alarm/trouble alarms. The system shall comply with the Alliance Standard and NFPA 72. Consult a qualified fire protection engineer and/or authorized fire alarm company to design and install the system.	
Suggested Deadline Date:	16 Sep 2018	
Standard:	Alliance Standard Part 13 Section 13.10 Maintenance of Fire Protection Equipment	

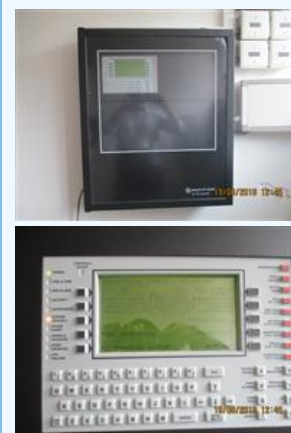


Question:	Is the building protected by an automatic sprinkler system?
Priority Level:	High
Non-Compliance Level:	2
Description:	The highest occupied floor level of the "Garments Buildings 01" is less than 75 feet. Considering buildings height, Sprinkler system is not required in this Factory. But, they have installed Sprinkler system at their "Finished goods Store & Bonded Warehouse" in Ground floor for additional protection. Proposed design of Automatic Sprinkler System was not reviewed/approved by Alliance.
Source of Findings:	Photograph: Automatic Sprinkler System at "Finished goods Store & Bonded Warehouse" in Ground floor "Garments Buildings 01".
Suggested Plan of Action:	The Proposed/As-built design of Automatic Sprinkler System should be sent for Alliance review.
Suggested Deadline Date:	19 Sep 2018
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 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:	The Proposed design of fire detection system is not reviewed or approved by Alliance. Notification and initiation devices have been seen in the factory during the assessment, but those have not addressable identification.
Source of Findings:	Photograph: Notification and initiation devices.
Suggested Plan of Action:	Install initiating devices and notification appliances as required by the Alliance Standard and NFPA 72. Devices should be part of an automatic fire alarm and detection system for the facility. All fire alarm installations shall be submitted for review by the Alliance prior to the commencement of installation.
Suggested Deadline Date:	15 Sep 2018
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:	Does the building have a fire pump?
Priority Level:	High
Non-Compliance Level:	1
Description:	Fire pump System installation is done but Commissioning and Testing are not done yet.
Source of Findings:	Visual Assessment: A fire pump system has been seen during the assessment.
Suggested Plan of Action:	Once a dedicated fire pump is installed, Fire pump installation is to be tested for final acceptance in presence of Alliance and a final inspection of the installation shall be conducted by the Alliance prior to final acceptance of the installation by the Alliance as per clause 5.5.5. Acceptance testing of the installation shall be in accordance with NFPA 20, 22, and 25 testing requirements. Documentation of all testing shall be submitted to the Alliance for review prior to final acceptance by the Alliance.
Suggested Deadline Date:	16 Sep 2018
Standard:	Alliance Standard Part 5 Fire Protection Systems
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:	3
Description:	The automatic fire alarm system installation is going on. The proposed design of Fire detection system was not reviewed/approved by Alliance moreover they are installing fire detection system.
Source of Findings:	Visual Assessment: The automatic fire alarm system installation is going on and the system is monitored by a central station monitoring service.
Suggested Plan of Action:	Once installed, arrange for direct connection of the fire alarm and detection system to a central station monitoring service or the Fire Service and Civil Defense as per Alliance Standard Part 5 Section 5.7.5 Monitoring. The completed As-built drawing of fire detection system throughout the buildings should be sent for Alliance review.
Suggested Deadline Date:	23 Sep 2018
Standard:	Alliance Standard Part 5 Section 5.7.5 Monitoring





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:	Valves control of automatic sprinkler systems and water supply systems have not electrically supervised by a listed fire alarm system control unit. Sprinkler system final testing & commissioning process have not yet completed.
Source of Findings:	Visual Assessment: Control valves are not electrically supervised by a listed fire alarm system control unit.
Suggested Plan of Action:	Provide electrically supervised devices on the valves controlling the automatic sprinkler systems. Devices are to be supervised by a listed fire alarm system control unit.
Suggested Deadline Date:	19 Oct 2018
Standard:	Reference Alliance Standard Part 5 Section 5.3.5 Supervision and Alarms.
Question:	Are fire department connections provided and clearly identified for the Fire Protection Systems?
Priority Level:	Medium
Non-Compliance Level:	1
Description:	Connections for Fire department (Siamese) is provided but it is not clearly identified for the Fire Protection System.
Source of Findings:	Visual Assessment: No signage on the Fire Department (Siamese) outlet connection provided for easy identification.
Suggested Plan of Action:	Provide Fire Department (Siamese) connections in accordance with Alliance Standard Section 5.5.4. Connections shall match the Fire Service and Civil Defence hose thread standard.
Suggested Deadline Date:	16 Sep 2018
Standard:	Alliance Standard Part 5 Section 5.5.4 Fire Department Connections
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:	An approved audible device is not connected with automatic sprinkler system, which is activate by water flow equal to the flow of one sprinkler.
Source of Findings:	Visual Assessment: No alarm valve found with automatic sprinkler system.
Suggested Plan of Action:	Install an approved audible device connected to automatic sprinkler system, where a fire alarm system is installed, activation of the water-flow shall activate





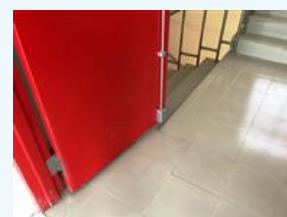
	the fire alarm system.	
Suggested Deadline Date:	19 Oct 2018	
Standard:	Reference Alliance Standards Part 5 Section 5.3.5.2 Alarms.	
Question:	Are inspection, maintenance, and testing procedures of the sprinkler system documented and up to date?	
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	Documents of inspection, maintenance, and testing procedures of the sprinkler system have not seen during assessments.	
Source of Findings:	Visual Assessment: Sprinkler system final testing & commissioning process have not yet completed.	
Suggested Plan of Action:	Need to establish the program for Regular Inspections, Periodic Inspections and Performance Verification.	
Suggested Deadline Date:	19 Oct 2018	
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:	1	
Description:	Identification Signs for the sprinkler system are not placed at required locations.	
Source of Findings:	Visual Assessment: Sprinkler system final testing & commissioning process have not yet completed.	
Suggested Plan of Action:	All control, drain, and test connection valves shall be provided with permanently marked weatherproof metal or rigid plastic identification signs.	
Suggested Deadline Date:	19 Oct 2018	
Standard:	Reference NFPA 13	
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:	No document regarding inspection, maintenance and testing procedure of standpipe and hose system was found among the documents have shown by the factory personnel.	



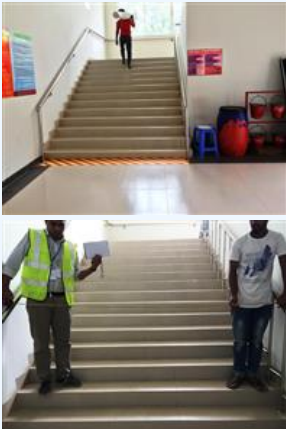
Source of Findings:	Visual Assessment: Inspection, Maintenance and testing documents are not seen on site for standpipe system.	
Suggested Plan of Action:	Establish an inspection, maintenance, and testing program for the standpipe and hose system. The program must comply with the requirements of NFPA 25.	
Suggested Deadline Date:	16 Sep 2018	
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:	Signage of standpipe system is not provided at the required locations and on required components for the installed standpipe system.	
Source of Findings:	Visual Assessment: No signage for the standpipe system installed at required locations and on required components.	
Suggested Plan of Action:	Once standpipe system is installed, install signage at required locations and on required equipment. Signage must comply with NFPA 14.	
Suggested Deadline Date:	16 Sep 2018	
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:	No plan and record of inspection, maintenance and testing of Fire pumps were found during the inspection.	
Source of Findings:	Visual Assessment: Fire pump System installation is done but Commissioning and Testing are not done yet.	
Suggested Plan of Action:	Once a dedicated fire pump is installed, establish an inspection, testing, and maintenance program for the fire pump. The program must comply with NFPA 25.	
Suggested Deadline Date:	09 Sep 2018	
Standard:	Reference NFPA 25 Chapter 8 Fire Pumps	
Means of Egress		



Question:	Landings are provided with the same width in the direction of egress travel as the stair clear width provided at each level and at intermediate landings. Existing landings that are less than the stair width, shall reduce the overall available capacity of the stair.
Priority Level:	High
Non-Compliance Level:	2
Description:	Landings are not provided with the same width of the stairs-1 at the ground floor of "Garments building 01". The width of the stair-1 is 92 inches but landing is provided 69 inches.
Source of Findings:	Visual Assessment: Landing is too narrow with respect of stair width.
Suggested Plan of Action:	To increase landing width need to shift adjacent wall in-front of stair one.
Suggested Deadline Date:	30 Sep 2018
Standard:	Alliance Standard Part 6 Section 6.9 Stairs and Section 6.5
Question:	Landings are provided on both sides of doors used along the path of egress. Doors do not swing out over stairs.
Priority Level:	High
Non-Compliance Level:	1
Description:	The opening side of the door is found to swing out over stair in the 1st-floor and 2nd-floor of "Dining building".
Source of Findings:	Visual Assessment: Doors have been found swing out over of stair.
Suggested Plan of Action:	Doors need to shift immediately in accordance with Alliance Standards Part 6 Section 6.8.
Suggested Deadline Date:	16 Sep 2018
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:	3
Description:	The occupant load is not posted for every assembly and production floor in a facility in a conspicuous space near the main exit or exit access doorway for space.
Source of Findings:	Visual Assessment: Occupant loads information is not posted.
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:	02 Sep 2018	
Standard:	Alliance Standards Part 6 Section 6.4.4 Posting of Occupant Load	
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:	1	
Description:	"Garments Building 01" are provided with 3 exit stairs, which every stair width is greater than 90 inch. but there are no intermediate handrails found.	
Source of Findings:	Visual Assessment: Handrails are provided on both sides of each stairway. No intermediate handrails have not been found.	
Suggested Plan of Action:	Provide handrails on both sides of each stairway. Intermediate handrails shall be provided when the stair width exceeds 87 inch. in accordance with Alliance Standard Part 6 Section 6.12.	
Suggested Deadline Date:	16 Sep 2018	
Standard:	Alliance Standard Part 6 Section 6.9 Stairs and 6.12 Handrails and Guards	
Question:	Every door in a stair enclosure serving more than 5 stories is provided with re-entry unless it meets the requirements of Alliance Standards Part 6 Section 6.8.3.1.	
Priority Level:	Medium	
Non-Compliance Level:	1	
Description:	No re-entry access has been found during the assessment.	
Source of Findings:	Visual Assessment: Every door in a stair enclosure serving more than 4 stories is not provided.	
Suggested Plan of Action:	Provide re-entry to floor levels from the stairwells in accordance with Allainace Standard Section 6.8.3.	
Suggested Deadline Date:	19 Sep 2018	
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
Fire Safety Programs		



Question:	Storage areas underneath the cutting tables are clear of combustibles.	
Priority Level:	Medium	
Non-Compliance Level:	1	
Description:	Storage areas underneath the cutting tables are not free from combustibles materials.	
Source of Findings:	Visual Assessment: Storage has been seen under the cutting tables.	
Suggested Plan of Action:	Remove all combustibles stored underneath the cutting tables in accordance with Alliance Standard Section 13.7.2.	
Suggested Deadline Date:	19 Sep 2018	
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:	1	
Description:	The factory has not received the Alliance Safety Training Curriculum at the time of the assessment.	
Source of Findings:	Visual Assessment: No training program has been found during the assessment.	
Suggested Plan of Action:	Training programs should be implemented and documented in accordance Alliance Standards Part 13.	
Suggested Deadline Date:	30 Sep 2018	
Standard:	Alliance Standards Part 13	
Question:	Fire Department pre-planning has been completed.	
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	Fire department pre-planning activities has not been completed by communicating and consulting with the local Fire Service and Civil Defense authority.	
Source of Findings:	Visual Assessment: Fire department pre-planning has not been completed and communicated yet.	
Suggested Plan of Action:	Complete fire department pre-planning activities with the local Fire Service and Civil Defense.	
Suggested Deadline Date:	19 Oct 2018	
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:	1
Description:	Hot-work permit policy & Hot-work permit form was not found during the visit.
Source of Findings:	Visual Assessment: No Hot-work permit policy & Hot-work permit.
Suggested Plan of Action:	Hot work permit system shall be established in accordance with NFPA 51B.
Suggested Deadline Date:	16 Sep 2018
Standard:	Alliance Standards Part 13 Section 13.4 Hot Work Permit and NFPA 51B