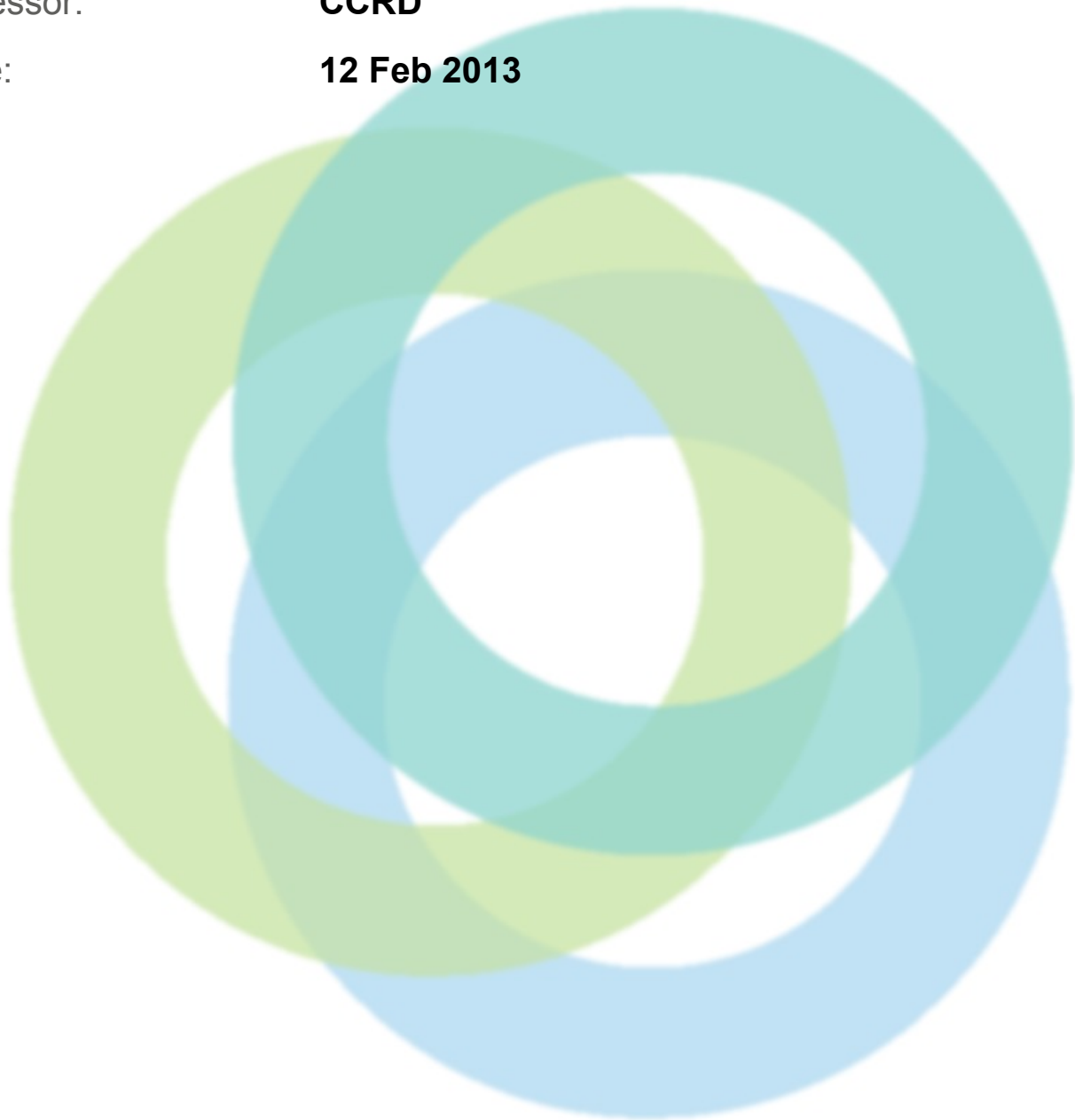


INITIAL FIRE ASSESSMENT REPORT (FAR)

Factory Name: **Denimach Limited**
Address: **Kewa Mouja, Ward# 5, Gorgoria Masterbari, Sreepur,
Gazipur Gazipur Dhaka Bangladesh**
Assessor: **CCRD**
Date: **12 Feb 2013**



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:	Denimach Limited
Address:	Kewa Mouja, Ward# 5, Gorgoria Masterbari, Sreepur, Gazipur Gazipur Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Gazipur
Zip Code:	1740
Audit Duration:	
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	June 29, 2014
Final Report Date:	June 30, 2014
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	Main Building, Washing Building
Is the building(s) owned or rented by the Factory:	Owned
Number of Building Levels (Stories):	Main: 8, Washing: 4.
Approximate Building Area (SF):	unknown
Date of Building Construction:	2007
Date of Last Building Renovation/Addition:	unknown
Ancillary Structures in Complex:	Utility Building
Approximate Ancillary Structures Area (SF):	unknown
Number of Occupants:	7338

Factory Name: **Denimach Limited**
Address: **Kewa Mouja, Ward# 5, Gorgoria Masterbari, Sreepur, Gazipur Gazipur Dhaka Bangladesh**

Assessor: **CCRD**
Date: **12 Feb 2013**



ALLIANCE
FOR BANGLADESH WORKER SAFETY

Number of Ancillary Levels (Stories):	1
Occupancy Type:	Sewing and washing (G2)
Construction Type:	Reinforced concrete and brick (Type 1)
Height of Highest Occupied Floor Level Above Grade:	8 stories



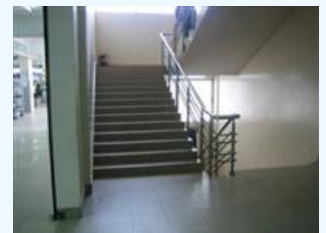
ASSESSMENT FINDINGS

Fire Protection Construction





Question:	Certificates of Occupancy for each building have been issued and are on file.	
Priority Level:	Low	
Non-Compliance Level:		
Description:	This was not reviewed during the initial visit (before Alliance Standards).	
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Are certificates of occupancy provided for each building or ancillary structure?	
Question:	Is the fire resistance materials of structural members in good condition and free of damage?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	BNBC Part 3 Chapter 3	
Question:	Are openings and penetrations through rated walls and/or assemblies protected?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Wall penetrations are not protected with firestop systems.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of	Install listed firestop systems at every penetration through fire rated walls and	



Action:	assemblies.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Includes doors, windows, ducts, piping, etc. Reference Alliance Standards Part 4 Section 4.6 Opening Protectives and Section 4.7 Penetrations	
Question:	Is each floor separated with a fire-resistive rated construction barrier?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Floor penetrations are not protected with firestop systems.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of Action:	Install listed firestop systems at every penetration through floors.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation	
Question:	Are separations between hazards provided with fire-resistive rated construction barriers.	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	Storage areas and hazardous areas are open to rest of building.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of Action:	Separate storage and hazardous areas from the rest of the building with 1-hour fire-rated construction. Install fire rated doors.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation	
Question:	Are exit enclosures provided with fire-resistive rated construction barriers?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Exit stairs in the factory building are open to all levels, with no fire rated separation.	
Source of Findings:	Photograph: Exit stair is open to production on all levels	





Suggested Plan of Action:	Protect all egress stairs with a shaft enclosure including 2-hour fire-rated construction. Install fire rated doors.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation	
Question:	Are shafts provided with the minimum fire-resistance rating?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	(1) There are three large air circulation shafts in the Main Building used for ventilation of the production floors. Fans along the outside wall draw fresh air into the building and the air returns to the outside through the air circulation shafts. The shafts have operable windows at each floor to modulate the air flow. While this design provides good air circulation, in a fire condition these shafts will enable smoke to be drawn throughout the entire building. (2) There are two freight elevators in the main building, one located adjacent to Stair 1 (West Exit Stair) and one located adjacent to Stair 2 (East Exit Stair). The elevator shaft openings have sliding grilles between the elevator shaft and the floor at each level. (3) There is a vertical shaft with electrical service and plumbing that proceeds through the building. This shaft is not enclosed in a fire-rated enclosure.	 
Source of Findings:	Photograph: (1) Freight elevator opening. (2) Electrical shaft penetrating multiple floors. (3) Air circulation shaft (4) Air circulation shaft	 
Suggested Plan of Action:	Provide vertical opening protection for the three ventilation shafts in the Main Building by means of roll down shutters that cover each of the window openings in each ventilation shaft. These shutters should be mounted on the "occupied" side of the ventilation shafts (for ease of resetting) and would normally be in the "open" position. Upon activation of any fire detection device in the main building, the fire alarm control panel should release these shutters so that they will automatically close. Provide each of the elevators in the Main Building and the Washing Building with elevator doors at each floor level that provide a 2-hour fire protection rating. Provide 2-hour fire resistive rating for all vertical shafts (primarily plumbing and electrical shafts). The protection means can either be at each floor penetration or by the provision of a fire rated shaft enclosure.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Reference Alliance Standards Part 4 Section 4.5.7.1 through 4.5.7.3	
Question:	Fire dampers installed on air-conditioning and ventilation ducts appear to be in good condition and operational.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		



Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standards Part 4 Section 4.6 Opening Protectives and Section 4.7 Penetrations	
Question:	If the building contains a vertical opening known as an atrium, have provisions been made to comply with Alliance Standard 3.7?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standards Section 3.7 Atrium	
Fire Protection Systems		
Question:	Is the building protected by an automatic sprinkler system?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	No sprinkler system was installed. It was reported that an automatic sprinkler system is planned to be provided for the raw materials and finished goods areas on the ground floor.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of Action:	Install automatic fire sprinkler systems throughout the facility. Manufacturing areas and storage less than 12 feet high is classified Ordinary Hazard (Group 2). Sprinkler systems should be designed to deliver 0.20 gpm/ft ² over the most remote 1500 square feet. 250 gpm hose allowance. 90 minute water supply duration.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Reference Alliance Standards Part 3 Section 3.5.3 Existing Buildings, Part 5 Section 5.3 Automatic Sprinkler Systems and Section 6.13 Travel Distance	



Question:	Design criteria of sprinkler system?	
Priority Level:		
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Provide the criteria used in the design of the sprinkler system.	
Question:	Commodity Class used for the design of the sprinkler system?	
Priority Level:		
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 13 Chapter 5	
Question:	Occupancy Classification used for the design of the sprinkler system?	
Priority Level:		
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 13 Chapter 5	
Question:	Are inspection, maintenance, and testing procedures of the sprinkler system documented and up to date?	



Priority Level:	Low	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 25 Chapter 5 Sprinkler Systems Table 5.1.1.2	
Question:	Are identification signs for the sprinkler system installed at the required locations?	
Priority Level:	Low	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 13	
Question:	Sprinkler system piping is free of mechanical damage, leakage, and corrosion.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	NFPA 25 Chapter 5 Section 5.2.2 Pipe and Fittings	
Question:	Sprinkler system piping is not subjected to external loads by materials either resting on the pipe or hung from the pipe?	



Priority Level:	Low	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 25 Chapter 5 Section 5.2.2.2	
Question:	Are hangers, bracing, and restraints properly installed and supporting the system piping?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 13 Chapter 9 Hanging, Bracing, and Restraint of System Piping.	
Question:	Sprinklers do not show signs of leakage, are free of corrosion, have not been painted, and are not physically damaged.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 25 Chapter 5	



Question:	All valves controlling the automatic sprinkler systems are electrically supervised by a listed fire alarm system control unit.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standard Part 5 Section 5.3.5 Supervision and Alarms.	
Question:	Does the automatic sprinkler system have an approved audible device activated by waterflow equal to the flow of one sprinkler?	
Priority Level:	Low	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standards Part 5 Section 5.3.5.2 Alarms.	
Question:	Are sprinklers spaced and installed at the required heights in order to provided required coverage and protection?	
Priority Level:	High	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 13	



Question:	Are storage racks and shelves compliant based on class of commodity storage?	
Priority Level:	High	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 13 Chapter 13, 14, 15, 16, or 17	
Question:	Aisles in storage areas are free of storage based on design criteria used for the sprinkler system.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 5 Section 5.3.6.3	
Question:	All storage is maintained with a 460 mm (18 in.) minimum clearance from the top of storage to the sprinkler deflector.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		



Standard:	Reference Alliance Standards Part 5 Section 5.3.6.1 Storage Clearance
Question:	Does the building have a Standpipe System?
Priority Level:	High
Non-Compliance Level:	2
Description:	The site contains fire hose stations around the buildings as well as fire hose cabinets within the building on each floor.
Source of Findings:	Visual Assessment: factory visit
Suggested Plan of Action:	Install a Class I standpipe system in the building with fire department valves at the floor landings in each stair. The standpipe will be part of the combined standpipe/sprinkler system supply.
Suggested Deadline Date:	31 Dec 2014
Standard:	Does the building have a standpipe system installed where required. Alliance Standard Part 5 Section 5.4.2
Question:	Are inspection, maintenance, and testing procedures of the standpipe and hose system documented and up to date? Including inspection and testing of hoses if provided.
Priority Level:	Low
Non-Compliance Level:	
Description:	
Source of Findings:	
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Reference NFPA 25 Chapter 6 Standpipe and Hose Systems Table 6.1.1.2
Question:	Is signage for the standpipe system installed at required locations and on required components?
Priority Level:	Low
Non-Compliance Level:	
Description:	
Source of Findings:	
Suggested Plan of Action:	



Suggested Deadline Date:		
Standard:	Reference NFPA 14 Chapter 6	
Question:	Standpipe system piping is free of mechanical damage, leakage, and corrosion?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	NFPA 25 Chapter 6 Standpipe and Hose Systems	
Question:	Are fire department connections provided and clearly identified for the Fire Protection Systems?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 5 Section 5.5.4 Fire Department Connections	
Question:	Does the building have a fire pump?	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	The facility has its own fire pump and cistern for fire protection water supply.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of Action:	Design and install a listed, approved fire pump to supply the calculated demand of the new sprinkler and class I standpipe system, per NFPA 20.	



Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 5 Fire Protection Systems	
Question:	Are inspection, maintenance, and testing procedures of the fire pump documented and up to date?	
Priority Level:	Low	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference NFPA 25 Chapter 8 Fire Pumps	
Question:	Are portable fire extinguishers installed throughout the building at required locations and mounted at the correct height?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	BNBC Part 4 Section 4.10 and NFPA 10	
Question:	Portable fire extinguishers have been selected based on potential fire class and hazards?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of		



Action:		
Suggested Deadline Date:		
Standard:	NFPA 10 Chapter 5	
Question:	Fire extinguishers are inspected, tested, and maintained as required.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	NFPA 10 Chapter 7	
Question:	Are there any other fire suppression systems installed within the building?	
Priority Level:		
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:		
Question:	Is the fire alarm and detection system monitored by a central station monitoring service or directly connected to the Fire Service and Civil Defense?	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	No central reporting system was installed.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of Action:	Arrange for direct connection of the fire alarm and detection system to a central station monitoring service or the Fire Service and Civil Defense. Assign	



	a person to contact the fire department in the event of fire alarm activation until this connection is set up. Locate an annunciator to alert this person in a constantly attended location (such as a fire control room).	
Suggested Deadline Date:	31 Dec 2104	
Standard:	Alliance Standard Part 5 Section 5.7.5 Monitoring	
Question:	Trouble or alarm notifications were not indicated on the fire alarm control panel.	
Priority Level:	High	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 13 Section 13.10 Maintenance of Fire Protection Equipment	
Question:	Are notification and initiation devices for the fire alarm system installed at required locations based on occupancy type?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	There is a manual fire alarm system in the main building. The system is activated by push buttons located at the entry to the stairs. It was reported that the existing fire alarm system is planned to be replaced with a new manual fire alarm system and automatic smoke detection system.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of Action:	Install fire alarm system per NFPA 72. Include pull stations at all entrances to exit stairs, at ground floor exits, and at the entry points to enclosed storage rooms. Install strobes and horns for complete notification on all floors. Install smoke detectors that are part of the fire alarm system in locations required by Alliance standards. Provide contact points for releasing of automatic hold-open devices for egress stair doors and building ventilation windows.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Pull stations at egress points, smoke detectors in air handling equipment, visual and audible devices spaced appropriately based on occupancy type. Reference NFPA 72	



Means of Egress

Question:	Occupant loads on each level (floor) do not exceed the capacity of the available means of egress.	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	The exit stairs have a combined exit width of 285 inches (7239 mm). Based on the BNBC requirement of 8mm/person for stairs, the maximum permitted occupant load per floor is calculated to be 904 persons. The population count on the north side of the 6th floor was reported to be slightly more than 600 occupants. Adding the population on the balance of the floor would exceed the occupancy load limit of the BNBC.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of Action:	Limit the population of each floor to 904. Alternately, construct additional exit stairs to accommodate the occupant load.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.4 Occupant Load	
Question:	Occupied roofs are provided with the minimum number of exits required as a story.	
Priority Level:	High	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 6 Section 6.6 Number of Means of Egress	
Question:	All occupied roofs are provided with parapets or guards with a minimum height of 1067 mm (42 in.).	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		



Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 12 Handrails and Guards	
Question:	Occupant loads are posted for every assembly and production floor in a conspicuous space near the main point of egress.	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	No occupant load signs are posted.	
Source of Findings:	Visual Assessment: factory visit	
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.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standards Part 6 Section 6.4.4 Posting of Occupant Load	
Question:	Aisles are provided with the minimum unobstructed clear width of 0.9 m (36 in) based on occupant loads.	
Priority Level:	High	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Higher occupancy loads will require a greater width to accommodate the increased load. Alliance Standard Part 6 Section 6.5 Egress Width	



Question:	The path of egress along the means of egress is not reduced at any point along the path of travel and is sufficient for the occupant load.
Priority Level:	High
Non-Compliance Level:	3
Description:	Stair 3 (North Exit Stair) has an obstruction at the 1st level to the ground floor where a stair from the daycare center reduces the available exit width by nearly one-half.
Source of Findings:	Photograph: (1) Steps from the daycare center reduce stair width from upper floors (2) View from above
Suggested Plan of Action:	Rearrange the stair from the daycare center to allow people coming down from upper floors to have full use of the width of the stair (the facility reports that a new stair is already planned for the daycare center).
Suggested Deadline Date:	31 Dec 2014
Standard:	Alliance Standard Part 6 Section 6.5 Egress Width and BNBC Table 4.3.2
Question:	Means of egress have a minimum ceiling height of 2.3 m (7 ft 6 in.) with projections from the ceiling not less than 2.03 m (6 ft 8 in.).
Priority Level:	Medium
Non-Compliance Level:	
Description:	
Source of Findings:	
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Alliance Standard Part 6 Section 6.3.3 Headroom
Question:	Exit discharge is directly to the exterior of the building, unless the requirements of 6.17.2 are met, at grade or provides direct access to grade. Exit discharge shall not reenter a building.
Priority Level:	High
Non-Compliance Level:	3
Description:	Stairs 1, 2, and 3 discharge into the interior of the building.
Source of Findings:	Visual Assessment: factory visit
Suggested Plan of Action:	Enclose the exit stairs in the Main Building and the Washing Building on each level such that once an occupant enters the stair enclosure they remain in a





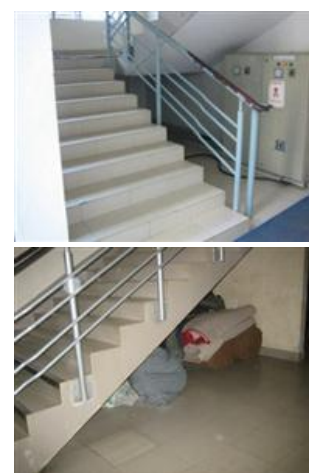
	fire rated enclosure until they reach an exit discharge directly to the outside. Install rated exit access corridors to connect stairs to exterior discharge.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.17 Exit Discharge. See Section 16.7.2 and 16.7.3 for exceptions.	
Question:	Travel distance to reach an exit does not exceed the maximum distance allowed by Occupancy Type.	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	Production floors lack cross aisles increasing travel distance. The Washing Building includes several large open work areas with only one means of egress and dead ends in excess of 120 feet.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of Action:	Cross aisles need to be added in the production floors (especially on floors 3 – 6) to assure workers have direct access to an exit. There are several areas in the production line that require workers to go well past an exit stair before being able to turn to the exit. Provide a second means of egress in areas of the washing building that only have one.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 13 Travel Distance and BNBC Part 4 Section 3.15.1	
Question:	Exit access corridors serving an occupant load exceeding 30 are separated by walls having a fire-resistance rating of 1 hr.	
Priority Level:	High	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.3 and Part 4 Section 4.5. Does not apply if an automatic sprinkler system is installed throughout the building.	
Question:	Interior finishes for means of egress meet the rating requirements for Class A, B and C materials.	



Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.3.2 Interior Finish	
Question:	Exits are limited to Class A and Class B interior materials.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.3.2 Interior Finish	
Question:	The number of means of egress from any floor or story is not less than 2 except where a single exit is permitted or where a greater number is required.	
Priority Level:	High	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.6 Number of Means of Egress	
Question:	The number of means of egress from any floor or story is not less than 3 when the occupant load exceeds 500 per story and not less than 4 when the	



	occupant load exceeds 1000 per story.
Priority Level:	High
Non-Compliance Level:	
Description:	
Source of Findings:	
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Alliance Standard Part 6 Section 6.6 Number of Means of Egress
Question:	All paths of egress are provided with compliant means of illumination.
Priority Level:	Medium
Non-Compliance Level:	1
Description:	Some emergency lights were installed.
Source of Findings:	Visual Assessment: factory visit
Suggested Plan of Action:	Install emergency lighting for all paths of egress. 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.
Suggested Deadline Date:	31 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:	Means of egress are free from impediments, obstructions, and stored materials.
Priority Level:	High
Non-Compliance Level:	2
Description:	There are numerous locations throughout the property where trash is not properly stored. Such areas include combustible materials in stair landings and under exit stairs. The discharge for Stair 2 (East Exit Stair) has electrical switchgear located under the stair.
Source of Findings:	Photograph: (1) Electrical switchgear located under the stair (2) Combustible materials stored under exit stairs
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. Permanently





	remove electrical equipment and all other foreign equipment from the stairs.	
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:	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:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape Lighting	
Question:	Doors are not locked in the direction of egress under any conditions. All hasps, locks, slide bolts, and other locking devices have been removed where required.	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	There is a manually operated roll-down shutter between the production floor and the stair opening at each stair landing. These shutters are kept in the open position during working hours. After work hours the shutters are closed and locked.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of Action:	Remove all existing gates and doors from the stairs and exits including all locking devices. Install approved fire doors with compliant panic hardware that cannot be locked in the direction of egress under any conditions.	
Suggested Deadline Date:	31 Dec 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:	All doors were unrated.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of Action:	Remove all existing gates and doors in the means of egress. Install fire doors at the stairs that are listed, approved, swinging, automatic-closing, in compatible fire rated frames with latching panic hardware.	
Suggested Deadline Date:	31 Dec 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:	There is a manually operated roll-down shutter between the production floor and the stair opening at each stair landing.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of Action:	Remove all existing doors and gates in the means of egress. Install side-hinged doors with approved hardware that swing in the direction of egress.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
Question:	Illuminated exit signs are placed at entrances to exits and along the path of egress anywhere the continuation of egress is not obvious or there is a change in the direction of the path of travel.	
Priority Level:	Medium	
Non-Compliance Level:	1	
Description:	Lighted exit signs are installed only at the exits.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of Action:	Provide continuously illuminated exit signs. 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:	31 Dec 2014	



Standard:	Alliance Standard Part 6 Section 6.11 Exit Signs	
Question:	Changes in elevation of walking surfaces do not exceed 6.35 mm (1/4 in) unless provided with a beveled slope of 1 in 2 that does not exceed 12.7 mm (1/2 in).	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.3.4 Walking Surfaces	
Question:	Illuminated exit signs are provided with battery backup or emergency power and are continuously illuminated.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 6 Section 6.11 Exit Signs and Part 10 Section 10.12 Illumination of Exit Signs and Means of Escape	
Question:	Emergency power for exit signs is tested at least once per year. If battery operated, these lights are tested on a monthly basis. Functional testing of battery powered signs is provided for a minimum 90 min once per year.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		

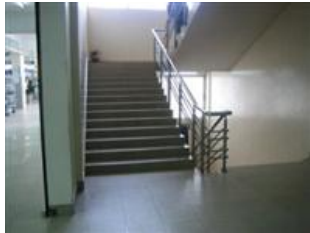


Suggested Deadline Date:		
Standard:	Alliance Standard Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape.	
Question:	Exit signs have appropriate illumination levels and contrasting graphics.	
Priority Level:	Low	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 10 Section 10.12.1 Exit Signs	
Question:	Walking surfaces along the path of egress are uniformly slip resistant.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.3.6 Slip Resistance	
Question:	Stairs are constructed of noncombustible materials.	
Priority Level:	Low	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		



Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.9 Stairs	
Question:	Stairs have a minimum width of 0.9 m (35 in.).	
Priority Level:	High	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.5 Egress Width. Applies to existing construction.	
Question:	Stair treads are of nominal uniformity.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 6 Section 6.9 Stairs. Any tread height exceeding more than 50% of the adjacent tread heights or 75 mm (3 in.), whichever is less, shall be modified to be within this tolerance	
Question:	Landings are provided on both sides of doors used along the path of egress. Doors do not swing out over stairs.	
Priority Level:	High	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of		



Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
Question:	Landings are provided with the same width in the direction of egress travel as the stair clear width provided at each level and at intermediate landings. Existing landings that are less than the stair width, shall reduce the overall available capacity of the stair.	
Priority Level:	High	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 6 Section 6.9 Stairs and Section 6.5	
Question:	Handrails are provided on both sides of each stairway. Intermediate handrails are provided when the stair width exceeds 2.2 m (87 in.). Handrails are not mounted lower than 760 mm (30 in.) or higher than 1100 mm (44 in.).	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Handrails are installed only on one side of stairs.	
Source of Findings:	Photograph: Handrails only on inside of stairs	
Suggested Plan of Action:	Provide handrails on both sides of each stairway. Mount handrails at a height between 30 in. and 44 in.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.9 Stairs and 6.12 Handrails and Guards	
Question:	Every door in a stair enclosure serving more than 5 stories is provided with re-entry unless it meets the requirements of Alliance Standards Part 6 Section 6.8.3.1.	
Priority Level:	Medium	
Non-Compliance Level:	3	



Description:	Fire doors and approved hardware were not installed.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of Action:	Install approved fire doors with latching panic hardware. Provide re-entry to floor levels from the stairwells according to the standard.	
Suggested Deadline Date:	31 Dec 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:	Windows from the building create exposure to the exterior exit stairs.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of Action:	Provide required fire rated construction 10 ft beyond the ends of the exterior stairs. Enclose any openings (windows, etc.) with required fire rated construction within that 10 ft wall section.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.3.1.2. Three stories or less 1-hr rating. Four stories or 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:	Stairs 1, 2, and 3 discharge into the interior of the building.	
Source of Findings:	Visual Assessment: factory visit	
Suggested Plan of Action:	Enclose the exit stairs in the Main Building and the Washing Building on each level such that once an occupant enters the stair enclosure they remain in a fire rated enclosure until they reach an exit discharge directly to the outside. Install rated exit access corridors to connect stairs to exterior discharge.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.14 Exit Enclosures	
Question:	Stair designation signs are provided at each floor entrance from the stair to the	



	floor in English and Bengali. Signs indicate the name of the stair and the floor level. Signs are posted adjacent to the door.
Priority Level:	Low
Non-Compliance Level:	3
Description:	Stair designation signs were not posted.
Source of Findings:	Visual Assessment: factory visit
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:	31 Dec 2014
Standard:	Alliance Standard Part 6 Section 6.9 Stairs
Question:	Stairwells are not utilized as storage spaces.
Priority Level:	High
Non-Compliance Level:	2
Description:	There are numerous locations throughout the property where trash is not properly stored. Such areas include combustible materials in stair landing and under exit stairs.
Source of Findings:	Visual Assessment: factory visit
Suggested Plan of Action:	Permanently remove all storage, trash, foreign material and foreign equipment out of the stairs. Implement a housekeeping program to keep the stairs and egress paths free of storage and impediments.
Suggested Deadline Date:	31 Dec 2014
Standard:	Alliance Standard Part 13 Section 13.9 Safety Inspections
Question:	Ramps used in a means of egress do not reduce the overall means of egress width. The minimum width shall be 1.1 m (44 in.).
Priority Level:	High
Non-Compliance Level:	
Description:	
Source of Findings:	
Suggested Plan of Action:	
Suggested Deadline Date:	



Standard:	Alliance Standards Part 6 Section 10 Ramps
Question:	Ramps do not have a running slope greater than 1 in 8 (12.5 percent) and have handrails on both sides of the ramp.
Priority Level:	Medium
Non-Compliance Level:	1
Description:	Exterior discharge uses ramps that do not have handrails and the slope exceeds the maximum slope for discharge.
Source of Findings:	Photograph: (1) Ramp with no handrails (2) Ramp too steep and no handrails
Suggested Plan of Action:	Provide handrails on both sides of all ramps. Revise slope of ramp to not exceed a slope of 1 in 12.
Suggested Deadline Date:	31 Dec 2014
Standard:	Alliance Standard Part 6 Section 10 Ramps




Fire Safety Programs

Question:	A Fire Safety Director position has been filled.
Priority Level:	Low
Non-Compliance Level:	
Description:	
Source of Findings:	
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director
Question:	An emergency evacuation plan has been developed and communicated to all employees.
Priority Level:	Medium
Non-Compliance Level:	
Description:	
Source of Findings:	
Suggested Plan of Action:	




Suggested Deadline Date:		
Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director	
Question:	Emergency egress maps are posted at the entrance to each exit stair or main point of egress.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 13 Section 13.4 Evacuation Plan	
Question:	Fire Department pre-planning has been completed.	
Priority Level:	Low	
Non-Compliance Level:		
Description:	This was not reviewed during the initial visit (before Alliance Standards).	
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director	
Question:	Fire Drills are conducted at required intervals based on building use type.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		



Suggested Deadline Date:		
Standard:	Alliance Standards Part 13 Section 13.3 Fire Drills	
Question:	Are the required number of people trained and certified in fire fighting, first aid, and rescue training by the appropriate authority.	
Priority Level:	High	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 13 Human Element Programs	
Question:	A written housekeeping policy is established and enforced.	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	There are numerous locations throughout the property where trash is not properly stored. Such areas include: Combustible materials in stair landing and under exit stairs. Combustible materials in equipment repair areas and adjacent to production areas	
Source of Findings:	Photograph: Combustible materials and trash stored in stair landings. , Visual Assessment: factory visit	
Suggested Plan of Action:	Improve housekeeping policies. Properly dispose of trash. Store combustibles only in rated store rooms. Clear congested areas.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standards Part 13 Section 13.6 Housekeeping	
Question:	A hot-work permit program has been established.	
Priority Level:	Low	
Non-Compliance Level:		
Description:		
Source of Findings:		



Suggested Plan of Action:			
Suggested Deadline Date:			
Standard:	Alliance Standards Part 13 Section 13.4 Hot Work Permit and NFPA 51B		
Question:	Storage areas underneath the cutting tables are clear of combustibles.		
Priority Level:	Medium		
Non-Compliance Level:	3		
Description:	Combustibles are stored under the cutting tables.		
Source of Findings:	Photograph: Combustible materials stored in equipment repair areas, adjacent to production areas, and under tables. , Visual Assessment: factory visit		
Suggested Plan of Action:	Remove all storage from under cutting tables and similar obstructions.		
Suggested Deadline Date:	31 Dec 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:			
Description:	This was not reviewed during the initial visit (before Alliance Standards).		
Source of Findings:			
Suggested Plan of Action:			
Suggested Deadline Date:			
Standard:	Alliance Standards Part 13		
Question:	Smoking is only allowed at designated areas.		
Priority Level:	Low		
Non-Compliance Level:			
Description:			
Source of Findings:			



Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 13 Section 13.5 Smoking	
Question:	Are all applicable permits up to date including Fire License & Boiler License.	
Priority Level:	Low	
Non-Compliance Level:		
Description:	This was not reviewed during the initial visit (before Alliance Standards).	
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 13 Human Element Programs	
Question:	Are there additional areas of non-compliance to report?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Not Applicable	