INITIAL FIRE ASSESSMENT REPORT (FAR)

Factory Name:	**MOHAMMADI KNIT STAR LIMITED**
Address:	**NO 1 MIRZAPUR, BHABANIPUR, GAZIPUR SADAR, GAZIPUR, Gazipur Dhaka Bangladesh**
Assessor:	**Bureau Veritas**
Date:	**08 Jun 2014**

Introduction to the Report

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

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

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

GENERAL INFORMATION

General Information	
Factory Name:	MOHAMMADI KNIT STAR LIMITED
Address:	NO 1 MIRZAPUR, BHABANIPUR, GAZIPUR SADAR, GAZIPUR, Gazipur Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Gazipur
Zip Code:	1703
Audit Duration:	1 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	06-12-2014
Final Report Date:	06-30-2014
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	There are 8 buildings in the factory premises out of which two are main production buildings and six are ancillary buildings. The buildings are named as: 1) Four story RCC main production building, 2) Two story RCC winding building, 3) Three story RCC house building, 4) Single story RCC generator & boiler room, 5) Single story RCC pump & wastage store room, 6) Single story RCC guard room, 7) Single story dining & residence shed, 8) Single story prayer room shed.
Is the building(s) owned or rented by the Factory:	Owned
Number of Building Levels (Stories):	Information provided below as per following format: Highest occupied floor level [Height up to roof], Stories above grade, Stories below grade, Occupied level. 1) Four story RCC main production building: 9.60 m or 31.5 ft [12.65 m or 41.5 ft], 4, 0, 4. 2) Two story RCC winding building: 3.35 m or 11 ft [6.40 m or 21 ft], 2, 0, 2. 3) Three story RCC house building: 6.56 m or 21.5 ft [9.60 m or 31.5 ft], 3, 0, 3. 4) Single story RCC generator & boiler room: 30 cm or 1 ft above grade [3.05 m or 10 ft], 1, 0, 1. 5) Single story RCC pump & wastage store room: 30 cm or 1 ft above grade [3.05 m or 10 ft], 1, 0, 1. 6) Single story RCC guard room: 30 cm or 1 ft above grade [3.05 m or 10 ft], 1, 0, 1. 7) Single story dining & residence shed: 30 cm or 1 ft below grade [3.66 m or 12 ft], 1, 0, 1. 8) Single story prayer room shed: At grade [2.44 m or 8 ft], 1, 0, 1.
Approximate Building Area (SF):	Total area of all buildings in the factory premises: 146838 sft. Building wise breakdown as follows: 1) Four story RCC main production building: 110344.00 sft (Ground floor: 27586.00 sft, 1st floor: 27586.00 sft, 2nd floor: 27586.00 sft, 3rd floor: 27586.00 sft), 2) Two story RCC winding building: 9984.00 sft (Ground floor: 4992.00 sft, 1st floor: 4992.00 sft), 3) Three story RCC house building: 10359.00 sft (Ground floor: 3453.00 sft, 1st floor: 3453.00 sft, 2nd floor: 3453.00 sft), 4) Single story RCC generator & boiler room: 3492.00 sft, 5) Single story RCC pump & wastage store room: 1375 sft, 6) Single story RCC guard room: 150 sft, 7) Single

	story dining & residence shed: 8634 sft, 8) Single story prayer room shed: 2500 sft.
Date of Building Construction:	Factory personnel informed the date of construction as follows: 1) Four story RCC main production building: Started in May-2005 and finished in June-2013, 2) Two story RCC winding building: Started and finished in May-2005, 3) Three story RCC house building: Started and finished in May-2005, 4) Single story RCC generator & boiler room: Started and finished in May-2005, 5) Single story RCC pump & wastage store room: No information of construction date was found, 6) Single story RCC guard room: Started and finished in May-2005, 7) Single story dining & residence shed: Started and finished in May-2005, 8) Single story prayer room shed: No information of construction date was found.
Date of Last Building Renovation/Addition:	No record for date of renovation or addition was found from factory personnel.
Ancillary Structures in Complex:	1) Three story RCC house building, 2) Single story RCC generator & boiler room, 3) Single story RCC pump & wastage store room, 4) Single story RCC guard room, 5) Single story dining & residence shed, 6) Single story prayer room shed.
Approximate Ancillary Structures Area (SF):	1) Three story RCC house building: 10359.00 sft (Ground floor: 3453.00 sft, 1st floor: 3453.00 sft, 2nd floor: 3453.00 sft), 2) Single story RCC generator & boiler room: 3492.00 sft, 3) Single story RCC pump & wastage store room: 1375 sft, 4) Single story RCC guard room: 150 sft, 5) Single story dining & residence shed: 8634 sft, 6) Single story prayer room shed: 2500 sft.
Number of Occupants:	Total number of occupants: 1606. 1) Four story RCC main production building: 1564 (Ground floor: 347, 1st floor: 594, 2nd floor: 488, 3rd floor: 135), 2) Two story RCC winding building: 16 (Ground floor: 4, 1st floor: 12), 3) Three story RCC house building: 4 (Ground floor: 4, 1st floor: 0, 2nd floor: 0), 4) Single story RCC generator & boiler room: 6, 5) Single story RCC pump & wastage store room: 0, 6) Single story RCC guard room: 3, 7) Single story dining & residence shed: 13, 8) Single story prayer room shed: 0.
Number of Ancillary Levels (Stories):	Information provided below as per following format: Highest occupied floor level [Height up to roof], Stories above grade, Stories below grade, Occupied level. 1) Three story RCC house building: 6.56 m or 21.5 ft [9.60 m or 31.5 ft], 3, 0, 3. 2) Single story RCC generator & boiler room: 30 cm or 1 ft above grade [3.05 m or 10 ft], 1, 0, 1. 3) Single story RCC pump & wastage store room: 30 cm or 1 ft above grade [3.05 m or 10 ft], 1, 0, 1. 4) Single story RCC guard room: 30 cm or 1 ft above grade [3.05 m or 10 ft], 1, 0, 1. 5) Single story dining & residence shed: 30 cm or 1 ft below grade [3.66 m or 12 ft], 1, 0, 1. 6) Single story prayer room shed: At grade [2.44 m or 8 ft], 1, 0, 1.
Occupancy Type:	1) Four story RCC main production building: [Ground floor: G2 (Iron, packing, sampling, washing, Inspection, Spot removing room), F1 (Office), H2 (Finished goods store, chemical store, yarn store), 1st floor: G2 (Linking, mending, sampling, trimming, distribution), H2 (Yarn store), 2nd floor: G2 (Knitting, inspection), 3rd floor: G2 (Knitting, Distribution)], 2) Two story RCC winding building: [Ground floor: H2 (Yarn Store), F1 (Office), 1st floor: G2 (Winding), H2 (Yarn Store)], 3) Three story RCC house building: [Ground floor: F1 (Office), H2 (Accessory store), D1 (Medical), B2 (Daycare), 1st floor: E4 (Training center), A3 (Residence), H2 (Wastage store), 2nd floor: H2 (Cartoon store, wastage store, hanger store)] and see description.
Construction Type:	1) Four story RCC main production building: Type 1, 2) Two story RCC winding building: Type 1, 3) Three story RCC house building: Type 1, 4) Single story RCC generator & boiler room: Type 1, 5) Single story RCC pump & wastage store room: Type 1, 6) Single story RCC guard room: Type 1, 7) Single story dining & residence shed: Non-rated, 8) Single story prayer room shed: Non-rated.
Height of Highest Occupied Floor Level Above Grade:	1) Four story RCC main production building: 9.60 m or 31.5 ft, 2) Two story RCC winding building: 3.35 m or 11 ft, 3) Three story RCC house building: 6.56 m or 21.5 ft, 4) Single story RCC generator & boiler room: 30 cm or 1 ft above grade, 5) Single story RCC pump & wastage store room: 30 cm or 1 ft above grade, 6) Single story RCC guard room: 30 cm or 1 ft above grade, 7) Single story dining & residence shed: 30 cm or 1 ft below grade, 8) Single story prayer room shed: At grade.

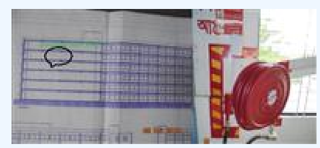
ASSESSMENT FINDINGS

Fire Protection Construction

Question:	Are openings and penetrations through rated walls and/or assemblies protected?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	The east side wall of main production building has windows within 10 ft of east side staircase. The openings in the exterior wall on ground floor and first floor of main production building and winding building (close to each other) are not fire protected. Almost all doors and other openings of store and exits leading to stair enclosure are not fire-rated. There are openings in wastage room and compressor room adjacent to liquid storage and prayer room.	
Source of Findings:	Photograph: There were many openings and penetrations which are not sealed or protected.	
Suggested Plan of Action:	Install fire rated doors and windows or fill in unprotected openings with fire resistive rated assemblies.	
Suggested Deadline Date:	30 Sep 2014	
Standard:	Includes doors, windows, ducts, piping, etc. Reference Alliance Standards Part 4 Section 4.6 Opening Protectives and Section 4.7 Penetrations	
Question:	Are exit enclosures provided with fire-resistive rated construction barriers?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Exit enclosures are not fire protected. None of the entrances to the exit enclosures fitted with fire rated doors. Also on the wall of east side stair there are non rated glass windows and these windows are within 10 feet from the non rated windows of the production floors.	
Source of Findings:	Photograph: The openings and doors in the exit enclosures were not fire resistive rated.	
Suggested Plan of Action:	Exit enclosures shall be have a minimum fire-resistance rating of 2 hr when connecting four stories or more and a minimum fire-resistance rating of 1 hr when connecting three stories or less. Fit doors that swing in the direction of egress, side-swinging, self-closing, non-lockable fire doors of 1.5 hr or 1 hr rating in all stairwell enclosures according to Alliance Standard. Consult a qualified fire protection engineer to design the required rated construction barriers.	
Suggested Deadline	30 Sep 2014	

Date:		
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation	
Question:	Is each floor separated with a fire-resistive rated construction barrier?	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	1st and 2nd floor of the four story main production buildings is vertically separated by RCC slab of thickness 9 inch with finishing. But 3rd floor is concrete slab which rests on steel deck, that's why floors are not properly fire separated. The other RCC buildings have the adequate thickness of slab.	
Source of Findings:	Photograph: 3rd floor of the four story main production building is non rated.	
Suggested Plan of Action:	Provide fire-resistive rated construction barriers between floors following Section 4.4 and Table 4.4.1 of Alliance Standard or Table 3.3.1 (page 10383) and Table 4.1.1 (page 10409) from BNBC Part 4. Consult a qualified fire protection engineer to design the rated construction barriers.	
Suggested Deadline Date:	20 Feb 2015	
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:	There is a spot removing room on ground floor of main production building with glass and aluminum partitions. Solvent such as acetone are used in this room with compressed air guns. This room needs a 1 hr fire rated separation with 45 min fire rated door. No separation is available at the in-process store at the main entrance of 1st floor of main production building. The finished goods store on ground floor of the main production building is not fire separated. The prayer shed and liquid storage (diesel) area are also not fire separated properly. Also, chemical store on ground floor beside washing section is not properly fire separated. On ground floor of three story house building, the daycare room, medical and store are not fire separated properly.	
Source of Findings:	Photograph: Numerous occupancies were found without proper fire separations.	
Suggested Plan of Action:	Provide fire-resistive rated construction barriers between hazard types in accordance with Alliance Standard. Consult a qualified fire protection engineer to design the required rated construction barrier.	
Suggested Deadline Date:	23 Dec 2014	
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation	

Question:	Certificates of Occupancy for each building have been issued and are on file.
Priority Level:	Low
Non-Compliance Level:	1
Description:	No occupancy certificate is available for any building in the factory premises.
Source of Findings:	Document Review: There were no occupancy certificates for any of the buildings among the documents shown by the factory concerned people.
Suggested Plan of Action:	Apply to PWD for issuance of occupancy certificate and pursue the matter to expedite.
Suggested Deadline Date:	19 Aug 2014
Standard:	Are certificates of occupancy provided for each building or ancillary structure?
Fire Protection Systems	
Question:	Is the building protected by an automatic sprinkler system?
Priority Level:	High
Non-Compliance Level:	3
Description:	2nd and 3rd floor of the four story main production building are non-rated with areas of 27,586 sft on each floor. According to the Alliance Standard, existing buildings greater than 2 stories with nonrated construction shall not exceed 2000 m2 (22,000 sq.ft.) per floor unless automatic sprinkler protection is provided throughout. Therefore the building needs to be protected by an automatic sprinkler system, but an automatic sprinkler system is not provided in the building.
Source of Findings:	Visual Assessment: No sprinkler system was found installed.
Suggested Plan of Action:	Consult to a qualified engineer to make the roof fire rated(fire proof) or install an automatic sprinkler system throughout the building designed by a qualified fire protection engineer. The hydraulic design of the sprinkler system has to be pre-approved by CoE of Alliance. All installation and design requirements outlined in BNBC Part 4 Chapter 4 shall be replaced by the requirements of NFPA 13. Pipe schedules shall not be used to size pipe. All systems shall be hydraulically calculated to meet the required NFPA design requirements. Installation of new automatic sprinkler systems shall be required to provide shop drawings and hydraulic calculations as outlined in NFPA. The test and performance report of the installed system must be submitted to Alliance for review. Final inspection and testing shall be witnessed by Alliance.
Suggested Deadline Date:	17 Mar 2015
Standard:	Reference Alliance Standards Part 3 Section 3.5.3 Existing Buildings, Part 5 Section 5.3 Automatic Sprinkler Systems and Section 6.13 Travel Distance
Question:	Does the building have a fire pump?

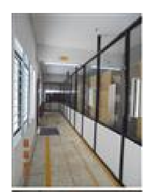
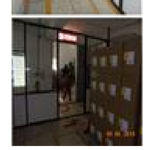
Priority Level:	High	
Non-Compliance Level:	3	
Description:	There is no dedicated fire pump in the factory premises to supply water in case of fire incidence.	
Source of Findings:	Visual Assessment: No dedicated fire pump was available in the factory premises.	
Suggested Plan of Action:	Install dedicated fire pump following NFPA 20 requirements. Fire pump installation is to be tested for final acceptance in presence of Alliance and a final inspection of the installation shall be conducted by the Alliance prior to final acceptance. Acceptance testing of the installation shall be in accordance with NFPA 25 testing requirements. Documentation of all testing shall be submitted to the Alliance for review prior to final acceptance. Also, install a water storage tank in accordance with NFPA 22 requirements.	
Suggested Deadline Date:	07 Oct 2014	
Standard:	Alliance Standard Part 5 Fire Protection Systems	
Question:	Does the building have a Standpipe System?	
Priority Level:	High	
Non-Compliance Level:	1	
Description:	Height of the highest occupied floor of the buildings are not above 10m (33 ft) above grade. So, standpipe systems not required for the buildings.Yet the building have a standpipe system with 1 inch plastic type hose and there is no hydraulic design for the system.	
Source of Findings:	Photograph: Standpipe systems not required for the buildings.	
Suggested Plan of Action:	Prepare the hydraulic design of the installed system and get it approved by Alliance expert. Testing of the installation shall be conducted in accordance with NFPA 14 acceptance testing requirements. Documentation of all testing shall be submitted for review by the Alliance. Final inspection and testing of the installation shall be witnessed by the Alliance as per clause 5.4.3.3.	
Suggested Deadline Date:	01 Jan 2015	
Standard:	Does the building have a standpipe system installed where required. Alliance Standard Part 5 Section 5.4.2	

Question:	Are notification and initiation devices for the fire alarm system installed at required locations based on occupancy type?	
Priority Level:	High	
Non-Compliance Level:	1	
Description:	Pull stations for occupant notification installed at egress point of production floors. smoke detector, audible alarm are available in the factory, but approved shop drawing not found.	
Source of Findings:	Photograph: Pull station, smoke detector, audible alarm, visual alarm were available.	
Suggested Plan of Action:	Approved shop drawing required for the existing system and it should be compliant with NFPA 72, The drawing should be submitted to review by Aliiance.	
Suggested Deadline Date:	12 Jan 2015	
Standard:	Pull stations at egress points, smoke detectors in air handling equipment, visual and audible devices spaced appropriately based on occupancy type. Reference NFPA 72	
Question:	Are fire department connections provided and clearly identified for the Fire Protection Systems?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Fire department (Siamese) inlet and outlet connections are not provided to allow fire department pumper equipment to supplement the fire protection systems as per the requirement.	
Source of Findings:	Visual Assessment: No fire department connection was noticed.	
Suggested Plan of Action:	Install fire department connections where required and in compliance with the Standard. Fire department outlet connections shall be provided to allow fire department pumper vehicles to draw water from ground-level or underground water storage tanks and inlet connections shall be provided to fill up the water storage tank. Connections shall match the Fire Service and Civil Defense hose thread standard.	
Suggested Deadline Date:	23 Dec 2014	
Standard:	Alliance Standard Part 5 Section 5.5.4 Fire Department Connections	

Question:	Fire extinguishers are inspected, tested, and maintained as required.
Priority Level:	Medium
Non-Compliance Level:	2
Description:	Extinguishers are inspected monthly by factory 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. These are required as per the NFPA 10.
Source of Findings:	Document Review: No document regarding inspection, maintenance and testing procedure of fire extinguisher was found in the documents shown by the factory personnel.
Suggested Plan of Action:	Fire extinguishers are to be inspected, tested, and maintained in accordance with NFPA 10 requirements.
Suggested Deadline Date:	23 Dec 2014
Standard:	NFPA 10 Chapter 7

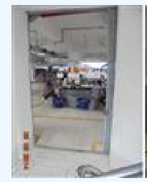
Question:	Is the fire alarm and detection system monitored by a central station monitoring service or directly connected to the Fire Service and Civil Defense?
Priority Level:	Medium
Non-Compliance Level:	2
Description:	An automatic fire alarm and detection system is available in the factory, but currently there is no monitoring company in Bangladesh. Fire service and civil defense is not also capable of monitoring fire alarm and detection systems of the factories.
Source of Findings:	Photograph: Fire alarm and detection system was available.
Suggested Plan of Action:	Arrange for direct connection of the fire alarm system to a central monitoring station or Fire Service and Civil Defense as per Alliance Standard. Until that time that monitoring can be set up, arrange a monitoring system using factory's own central detection system and personnel. A person shall be assigned to contact the fire department in the event of fire alarm activation. An annunciator shall be located in a constantly attended location (such as a fire control room) to alert this person.
Suggested Deadline Date:	05 Aug 2014
Standard:	Alliance Standard Part 5 Section 5.7.5 Monitoring

Question:	Are inspection, maintenance, and testing procedures of the standpipe and hose system documented and up to date? Including inspection and testing of hoses if provided.
Priority Level:	Low

Non-Compliance Level:	1	
Description:	Inspection, maintenance, and testing procedures of the standpipe and hose system are not documented and up to date.	
Source of Findings:	Document Review: No document regarding inspection, maintenance and testing procedure of existing standpipe and hose system was found among the documents shown by the factory personnel.	
Suggested Plan of Action:	Establish an inspection, maintenance, and testing program for the standpipe and hose system. Program must comply with the requirements of NFPA 25 Chapter 6 Table 6.1.1.2.	
Suggested Deadline Date:	20 Feb 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:	1	
Description:	Signage for the available standpipe system is not installed.	
Source of Findings:	Visual Assessment: Signage not found for the standpipe system.	
Suggested Plan of Action:	Install required identification signs at the noted locations. Signage must comply with NFPA 14 Chapter 6	
Suggested Deadline Date:	20 Dec 2014	
Standard:	Reference NFPA 14 Chapter 6	
Means of Egress		
Question:	Exit access corridors serving an occupant load exceeding 30 are separated by walls having a fire-resistance rating of 1 hr.	 
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Corridor on ground floor serving production area, office and store is not protected by 1 hour fire-resistant construction. On one side of the corridor there is a wall and on the other side of the corridor there is an aluminum glass partition, which are not provided with 0.75 hour rated opening protective assemblies as required by Alliance Standard.	
Source of Findings:	Photograph: Exit access corridors serving occupant load is not fire separated.	
Suggested Plan of Action:	Provide fire-resistive rated assemblies at the required exit access corridors. The rated assembly should be approved and/or designed by a qualified fire	

	protection engineer. Exit access corridors serving an occupant load exceeding 30 are to be separated by walls having a fire resistance rating of 1 hr unless provided with automatic sprinkler protection throughout the story or building. Window and glass block assemblies are to be tested fire rating following NFPA 257 requirements.
Suggested Deadline Date:	30 Sep 2014
Standard:	Alliance Standard Part 6 Section 6.3 and Part 4 Section 4.5. Does not apply if an automatic sprinkler system is installed throughout the building.
Question:	Doors are not locked in the direction of egress under any conditions. All hasps, locks, slide bolts, and other locking devices have been removed where required.
Priority Level:	High
Non-Compliance Level:	3
Description:	There are collapsible doors and steel leaf doors with locking arrangements at each egress location. This violates the Alliance Standard.
Source of Findings:	Photograph: Doors of collapsible type and steel leaf with lock were found at egress locations.
Suggested Plan of Action:	Remove all hasps, locks, slide bolts, or other locking devices at the noted locations. Doors may be locked where the latch and lock are disengaged with one motion where the occupant load does not exceed 49 persons. Turning a door handle and disengaging a lock is considered two motions. Doors may be provided with locking hardware from the ingress side provided that a panic bar is installed on any door with an occupant load exceeding 49 persons. Re-entry provisions must be met.
Suggested Deadline Date:	22 Jul 2014
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates

Question:	Doors along the path of egress have a minimum width of 0.8 m (32 in) and have required ratings.
Priority Level:	High
Non-Compliance Level:	3
Description:	The minimum width of door in the production buildings is 1.05m which is more than 0.8m, but doors are not fire rated.
Source of Findings:	Visual Assessment: Doors widths along the means of egress were more than 0.8m.
Suggested Plan of Action:	Provide 1 hr fire protective opening assemblies in 1 hr rated exit enclosure. Provide 1.5 hr fire protective opening assemblies in 2 hr rated exit enclosure. Exits connecting three or fewer stories shall be enclosed with a minimum 1-hr fire-resistance rating. Exits connecting four or more stories shall be enclosed with a minimum 2-hr fire-resistance rating. Exits shall be enclosed with the

	same fire-resistance rating as the floor penetrated but will not need to exceed 2 hr. Provide fire door of required rating to access the corridor.	
Suggested Deadline Date:	19 Aug 2014	
Standard:	Alliance Standard Part 6 Section 6.5.6 Minimum Widths. Increased occupant loads will require a door width greater than 0.8 m.	
Question:	All doors in a means of egress are of the side-hinged swinging type.	 
Priority Level:	High	
Non-Compliance Level:	3	
Description:	All doors are collapsible, steel leaf doors or wooden swinging doors with locking arrangements at each egress location. This violates the Alliance Standard.	
Source of Findings:	Photograph: All doors were not side-hinged swinging type.	
Suggested Plan of Action:	Replace all collapsible, sliding, roll-down gates and shutters in means of egresses with side-hinged swinging type doors of proper width and rating.	
Suggested Deadline Date:	30 Sep 2014	
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:	3	
Description:	Interior exit stairways terminate at an exit discharge of all the buildings except two story winding building. Interior exit stairway of the two story winding building terminates at a non-rated exit passageway which is in front of storage area and passes through the room, which violates the requirement of the Alliance Standard.	
Source of Findings:	Visual Assessment: Exit stair terminates at a non-rated exit passageway.	
Suggested Plan of Action:	Provide protective opening assemblies of required rating as per the Alliance Standard. Provide 1 hr rated separation with storage to make a rated corridor to serve the interior stair.	
Suggested Deadline Date:	30 Sep 2014	
Standard:	Alliance Standard Part 6 Section 6.14 Exit Enclosures	
Question:	Aisles are provided with the minimum unobstructed clear width of 0.9 m (36 in) based on occupant loads.	

Priority Level:	High	
Non-Compliance Level:	2	
Description:	Aisle at finished goods store on ground floor of the four story main production building is blocked by stored materials. Some aisles are not marked at yarn store on 1st floor and some are less than 0.9 m on ground floor store of the two story winding building. These conditions violate the Alliance Standard.	
Source of Findings:	Visual Assessment: Obstructed, shortened and unmarked aisles were found.	
Suggested Plan of Action:	Remove goods from the aisles to keep them free. For existing narrow aisles, remove present marking and draw new markings to fulfill the minimum aisle width requirement. Mark new aisles in the store according to Alliance Standard.	
Suggested Deadline Date:	30 Sep 2014	
Standard:	Higher occupancy loads will require a greater width to accommodate the increased load. Alliance Standard Part 6 Section 6.5 Egress Width	
Question:	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:	In the four story main production building, there are 5 stairs and all the stairs discharge directly to exterior of the building. Also, the exit discharges are directly to the exterior of the building in other buildings except two story winding building. One exit stairway of the two story winding building terminates at a non-rated exit passageway which is in front of storage area and passes through a room.	
Source of Findings:	Photograph: Exit discharge does not meet all the requirements.	
Suggested Plan of Action:	Provide rated exit passageway i.e. protected path of egress from the exit enclosure to the public way. The rating of the exit passageway is to be equal to fire rating requirement of the exit that is being served and shall not be less than 1 hr fire-resistance rated.	
Suggested Deadline Date:	30 Sep 2014	
Standard:	Alliance Standard Part 6 Section 6.17 Exit Discharge. See Section 16.7.2 and 16.7.3 for exceptions.	

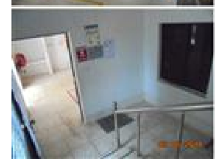
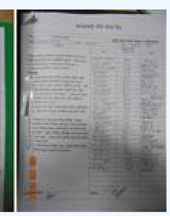
Question:	Exterior exit stairs are separated from the building with the required rating. The rating of the exterior wall shall extend 3.05 m (10 ft) beyond the ends of the stair structure.	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	In the two story winding building, the exterior stair is constructed parallel to the exterior wall on which there is a aluminum glass window which needs to be protected as as per Alliance Standard.	
Source of Findings:	Photograph: Aluminum window on the fire rated wall adjacent with exterior stair.	
Suggested Plan of Action:	Provide a fire-resistive rated assembly between the exterior exit stairs and the building up to 10 ft beyond the end of the stair to achieve the required separation. The rated assembly should be approved and designed by a qualified fire protection engineer. Close all openings across the span of the stair and corridor 10 feet on each side.	
Suggested Deadline Date:	30 Sep 2014	
Standard:	Alliance Standard Part 6 Section 6.3.1.2. Three stories or less 1-hr rating. Four stories of more 2-hr rating	
Question:	Occupant loads are posted for every assembly and production floor in a conspicuous space near the main point of egress.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Occupant loads are not posted in a conspicuous space near the main exits or exit access doorways as per the Alliance Standard.	
Source of Findings:	Visual Assessment: Occupant loads were not posted in any assembly and production floors.	
Suggested Plan of Action:	Post the occupant load for every assembly and production floor in a facility in a conspicuous space near the main exit or exit access doorway for the space.	
Suggested Deadline Date:	05 Aug 2014	
Standard:	Alliance Standards Part 6 Section 6.4.4 Posting of Occupant Load	

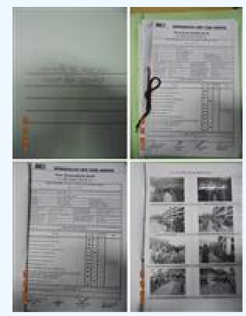
Question:	All paths of egress are provided with compliant means of illumination.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	All paths of egress are not provided with compliant means of illumination. Ordinary CFL bulbs are used as emergency lights, which do not provide sufficient illumination as required in accordance with Alliance Standard.	
Source of Findings:	Photograph: Exit access corridors, exit doors, aisles, stairways were found insufficiently illuminated while auditing.	
Suggested Plan of Action:	Install appropriate means of illumination at the noted locations. The means of egress paths shall be illuminated at all times the building is occupied. Illumination shall be a minimum of 10 lux for all corridors, exit doors, and stairways. Aisles shall be provided with a minimum 2.5 lux.	
Suggested Deadline Date:	23 Dec 2014	
Standard:	Alliance Standards Part 6 Section 6.7 Egress Illumination and Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape	

Question:	Emergency power for means of egress illumination is verified at least once per year. If battery operated lights are used, these lights are tested on a monthly basis. Functional testing of battery powered lights is provided for a minimum 90 min once per year.
Priority Level:	Medium
Non-Compliance Level:	2
Description:	Record of verifying emergency power for means of egress illumination was not found, which is required as per Alliance Standards.
Source of Findings:	Document Review: No document regarding verification of emergency power for means of egress was found on the day of audit.
Suggested Plan of Action:	Develop a testing and maintenance program that ensures the operation of all exit signs is verified at least once per year. If battery-operated signs are used, these signs shall be tested on a monthly basis. Functional testing of battery powered signs shall be provided for a minimum 90 min once per year.
Suggested Deadline Date:	05 Aug 2014
Standard:	Alliance Standards Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape Lighting

Question:	Illuminated exit signs are placed at entrances to exits and along the path of egress anywhere the continuation of egress is not obvious or there is a change in the direction of the path of travel.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Illuminated exit signs are placed at entrances to exits, but along the path of egress additional exit sign or directional signs are not provided where there is a change in direction and where the continuation of egress is not obvious. This condition fails to satisfy requirements stated in the Alliance Standard.	
Source of Findings:	Photograph: No exit sign at change in direction of egress path.	
Suggested Plan of Action:	Install illuminated exit signs at entrances to exits and along the path of egress anywhere the continuation of egress is not obvious or there is a change in the direction of the path of travel.	
Suggested Deadline Date:	23 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.11 Exit Signs	
Question:	Illuminated exit signs are provided with battery backup or emergency power and are continuously illuminated.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Battery backup is used for the illuminated exit signs but does not provide sufficient illumination.	
Source of Findings:	Visual Assessment: All exit signs were not properly illuminated.	
Suggested Plan of Action:	Provide an emergency power source, either by battery backup or by connecting to the emergency power system, for compliantly illuminated exit signs.	
Suggested Deadline Date:	23 Dec 2014	
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:	2	
Description:	No plan or record of conducting periodic test for the emergency battery backup of illumination of exit signs was found as required per the Alliance Standard.	

Source of Findings:	Document Review: No document regarding testing of emergency power for exit signs was found among the documents shown by the factory personnel.	
Suggested Plan of Action:	Develop a testing and maintenance program that ensures the emergency power for exit signs is tested at least once per year. If battery operated signs are used, these signs are tested on a monthly basis. Functional testing of battery powered signs is provided for a minimum 90 min once per year.	
Suggested Deadline Date:	05 Aug 2014	
Standard:	Alliance Standard Part 10 Section 10.12 Illumination of Exit Signs and Means Of Escape.	
Question:	Handrails are provided on both sides of each stairway. Intermediate handrails are provided when the stair width exceeds 2.2 m (87 in.). Handrails are not mounted lower than 760 mm (30 in.) or higher than 1100 mm (44 in.).	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	All the buildings have handrails on only one side. The handrails are mounted at 33 inches (i.e. higher than 30 inch). Stair-01 and 02 of the main production building are 2.69 m wide, but an intermediate handrail is not provided as required.	
Source of Findings:	Photograph: Handrails are available on only one side of stairs.	
Suggested Plan of Action:	Provide handrails on both side of each stairway. Provide intermediate handrail when the stair width exceeds 2.2m (87 inch). Provide handrails at heights between the range 865 mm (34 in.) and 965 mm (38 in.).	
Suggested Deadline Date:	23 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.9 Stairs and 6.12 Handrails and Guards	
Question:	Exit signs have appropriate illumination levels and contrasting graphics.	
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	Some exit signs do not have appropriate illumination levels and contrasting graphics as required.	
Source of Findings:	Photograph: Exit sign without appropriate illumination level.	
Suggested Plan of Action:	Make sure all required exit signs are illuminated continuously at all times. Exit signs may be illuminated either by lamps external to the sign or by lamps contained within the sign. The source of illumination shall provide not less than 50 lux at the illuminated surface with a contrast of not less than 0.5. Approved self-luminous signs which provide evenly illuminated letters having a minimum luminance of 0.2cd/m2 may also be used.	

Suggested Deadline Date:	23 Dec 2014	
Standard:	Alliance Standard Part 10 Section 10.12.1 Exit Signs	
Question:	Stair designation signs are provided at each floor entrance from the stair to the floor in English and Bengali. Signs indicate the name of the stair and the floor level. Signs are posted adjacent to the door.	 
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	Floor level, stair name or designation are not posted.	
Source of Findings:	Photograph: Floor level and stair name not mentioned.	
Suggested Plan of Action:	Install signage adjacent to each stair door indicating the stair name and the floor level at the noted locations.	
Suggested Deadline Date:	05 Aug 2014	
Standard:	Alliance Standard Part 6 Section 6.9 Stairs	
Fire Safety Programs		
Question:	Are the required number of people trained and certified in fire fighting, first aid, and rescue training by the appropriate authority.	 
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Record kept by the factory shows that 30 workers had been trained by proper authority but no certificate had been issued.	
Source of Findings:	Document Review: Resister maintained for fire fighting training but no document regarding fire training certificate has been found among the documents shown by factory personnel.	
Suggested Plan of Action:	Train and certify at least 402 (25 percent of occupants) people in fire fighting, first aid and rescue by the proper authority.	
Suggested Deadline Date:	23 Dec 2014	
Standard:	Alliance Standard Part 13 Human Element Programs	
Question:	An emergency evacuation plan has been developed and communicated to all employees.	
Priority Level:	Medium	
Non-Compliance Level:	2	

Description:	Workers are aware of the evacuation procedure upon commencing of the alarm. However, no procedure defining evacuation process was available.	
Source of Findings:	Visual Assessment: No document for emergency evacuation plan was found from factory personnel.	
Suggested Plan of Action:	Develop an emergency evacuation plan which includes duties and responsibilities of various people/groups, interfacing between groups and fire brigade, headcount and identification of trapped victims, physically disabled people and their rescue, etc.	
Suggested Deadline Date:	05 Aug 2014	
Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director	
Question:	Fire Drills are conducted at required intervals based on building use type.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Fire drills are conducted twice a month in all buildings but not under the direction of a Fire Safety Director. This does not meet the requirements of the Alliance Standard.	
Source of Findings:	Document Review: Fire drill report was found.	
Suggested Plan of Action:	Conduct fire drills on a quarterly basis as outlined in BNBC Part 4 Appendix A for all garment facilities. Fire drills shall be conducted under the direction of a Fire Safety Director. All other requirements for fire drills shall be conducted in accordance with BNBC requirements.	
Suggested Deadline Date:	22 Jul 2014	
Standard:	Alliance Standards Part 13 Section 13.3 Fire Drills	
Question:	Training programs are implemented and documented in accordance with the Alliance Safety Training Curriculum.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Fire training documents have been found, but training is not implemented and documented in accordance with the Alliance Safety Training Curriculum.	
Source of Findings:	Document Review: Alliance safety training curriculum was not found from the factory personnel.	
Suggested Plan of Action:	Impart training in accordance with Alliance Safety Training Curriculum and keep record with proper documentation.	
Suggested Deadline Date:	05 Aug 2014	

Factory Name:	**MOHAMMADI KNIT STAR LIMITED**
Address:	**NO 1 MIRZAPUR, BHABANIPUR, GAZIPUR SADAR, GAZIPUR, Gazipur Dhaka Bangladesh**
Assessor:	**Bureau Veritas**
Date:	**08 Jun 2014**

ALLIANCE FOR BANGLADESH WORKER SAFETY

Standard:	Alliance Standards Part 13	
Question:	A Fire Safety Director position has been filled.	
Priority Level:	Low	
Non-Compliance Level:	3	
Description:	No viable documentation or physical presence of Fire Safety Director was noted. However, factory has informed that they are trying to designate a person for this.	
Source of Findings:	Document Review: Any document for fire safety position not found on the day of audit.	
Suggested Plan of Action:	Create a Fire Safety Director position and fill the position with an individual that has had sufficient training to be able to carry the required duties. The duties of the Fire Safety Director shall include the following: (1) Establish internal and external rally points and communicate to all employees in the building. (2) Fire department pre-planning. (3) Conduct safety inspections as outlined in Alliance Standard. (4) Ensure all testing of fire protection equipment is conducted in accordance with Alliance standard.	
Suggested Deadline Date:	23 Dec 2014	
Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director	
Question:	Smoking is only allowed at designated areas.	 
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	Smoking is prohibited as per verbal information of factory personnel, but signs are not posted in Bengali and English at all building entrances except generator & boiler area. These steps are required as per the Alliance Standard.	
Source of Findings:	Photograph: No sign for "no smoking" found except in the generator and compressor area.	
Suggested Plan of Action:	Smoking shall be prohibited in any garment factory building, separate storage building, or any building or area where the Inspector of the Factories Rules (1.6.3.7) Part 53 requires that smoking be prohibited. If an Owner creates a designated smoking area outside the buildings, information on the location of these designated areas shall be posted on the signs.	
Suggested Deadline Date:	22 Jul 2014	
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:	2	
Description:	Waiver certificate for 480 KW capacity of two generators is not available.	
Source of Findings:	Document Review: Waiver certificate from BERC was not found.	
Suggested Plan of Action:	Apply to BERC for waiver certificate.	
Suggested Deadline Date:	05 Aug 2014	
Standard:	Alliance Standard Part 13 Human Element Programs	
Question:	Fire Department pre-planning has been completed.	
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	Fire department pre-planning was not found.	
Source of Findings:	Document Review: No document regarding fire department pre-planning has been found among the documents shown by factory personnel.	
Suggested Plan of Action:	Complete fire department pre-planning activities with the local Fire Service and Civil Defense.	
Suggested Deadline Date:	05 Aug 2014	
Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director	
Question:	A written housekeeping policy is established and enforced.	
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	Written housekeeping resister was found, but policy was not found as per the Alliance Standards.	
Source of Findings:	Document Review: Housekeeping resister was found which was not proper.	
Suggested Plan of Action:	Establish written corporate and plant policies on housekeeping to ensure scheduled cleaning for floor, wall, ceiling, supply and return air ventilation systems. Promptly reschedule skipped cleanings. Provide a documented line of authority for authorizing a cleaning delay and rescheduling. As a general rule the maximum tolerable deposit thickness for loose fluffy lint is 13 mm (½ in.) over a maximum of 46.5 m2 (500 ft2). Limit dense deposits to 6 mm (¼ in.) and oil saturated deposits to 3.2 mm (⅛ in.).	
Suggested Deadline Date:	17 Mar 2015	

Standard:	Alliance Standards Part 13 Section 13.6 Housekeeping	
Question:	A hot-work permit program has been established.	
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	A hot-work permit program is not established. It is required as per the Alliance Standards.	
Source of Findings:	Document Review: No hot-work permit could be presented by the factory personnel.	
Suggested Plan of Action:	Develop a hot-work permit program. The program must comply with NFPA 51B requirements. In general, this program should address process of request and approval of authorities, necessary checks prior to approval, standby fire watch and fire fighting equipment, sounding of alarm procedure, duration and expiry of permit and reapproval procedure, etc.	
Suggested Deadline Date:	23 Dec 2014	
Standard:	Alliance Standards Part 13 Section 13.4 Hot Work Permit and NFPA 51B	