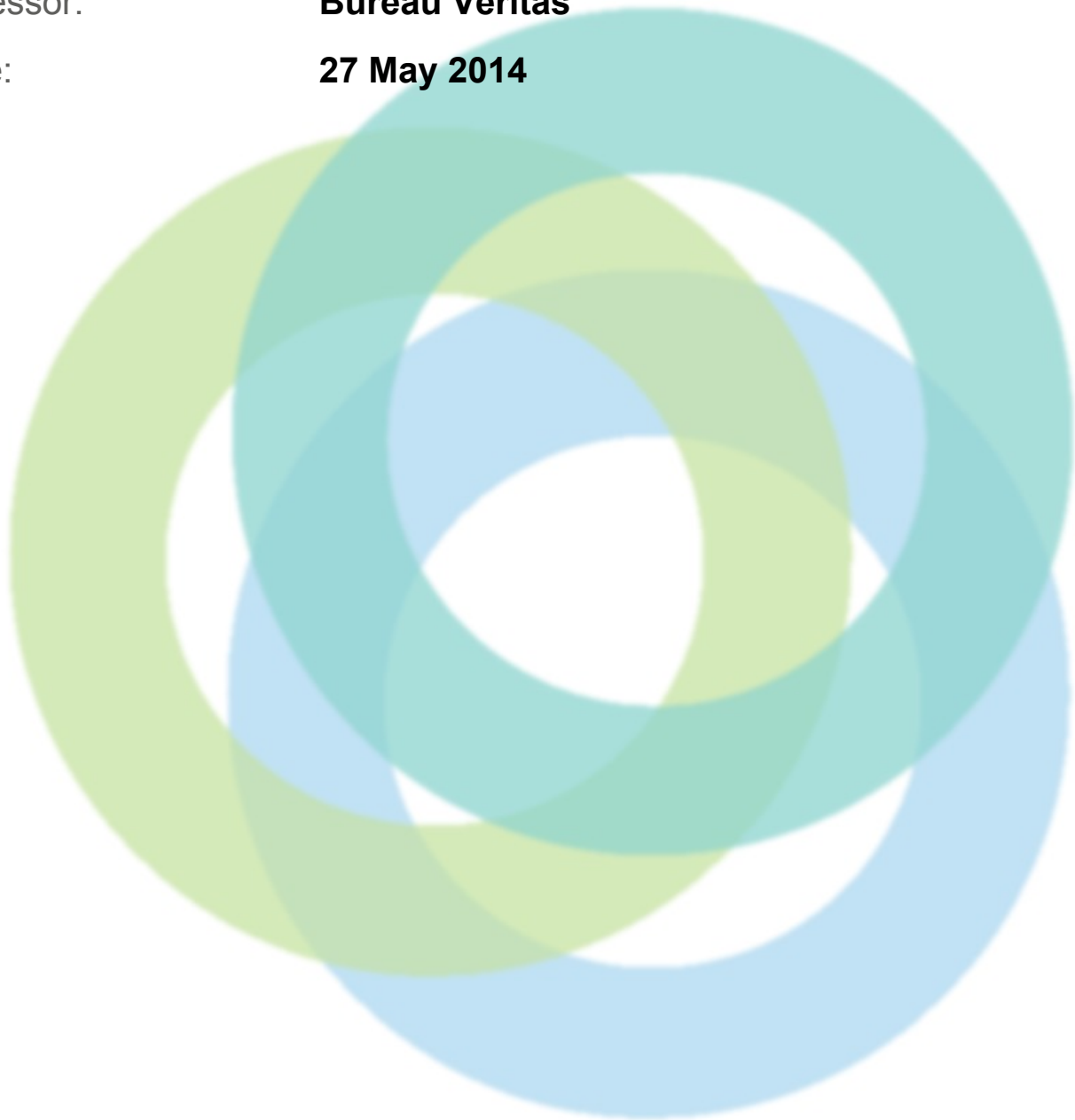


INITIAL FIRE ASSESSMENT REPORT (FAR)

Factory Name: **ACS TEXTILES (BANGLADESH) LTD.**
Address: **Tetlabo, Rupgonj, Narayangonj Rupgonj Dhaka
Bangladesh**
Assessor: **Bureau Veritas**
Date: **27 May 2014**





Introduction to the Report

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

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

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





GENERAL INFORMATION

General Information

Factory Name:	ACS TEXTILES (BANGLADESH) LTD.
Address:	Tetlabo, Rupgonj, Narayangonj Rupgonj Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Rupgonj
Zip Code:	1464
Audit Duration:	1 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	05-31-2014
Final Report Date:	06-29-2014
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	There are 13 buildings in the factory premises out of which five are main production buildings and eight are ancillary buildings. The buildings are named as: 1) Three story RCC Accessories Building, 2) Single story pre-fabricated Processing shed, 3) Three story pre-fabricated chemical godown shed, 4) Two story pre-fabricated Weaving Shed Unit-2, 5) Two story RCC utility building with pre-fabricated shed at roof unit-1, 6) Three story RCC office building, 7) Two story pre-fabricated utility shed unit-2, 8) Three story RCC staff quarter, 9) Single story Medical Center, Child Care and pump room pre-fabricated shed, 10) Single story pre-fabricated grey & yarn Shed, 11) Two story pre-fabricated weaving shed unit-1, 12) Two story pre-fabricated warping shed, 13) Two story pre-fabricated towel 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) Accessories Building: 45.92 ft [68.88 ft], 3, 0, 3. 2) Processing shed: 1 ft [14.76 ft], 1, 0, 1. 3) Chemical godown shed: 45.92 ft [68.88 ft], 3, 0, 3. 4) Weaving Shed Unit-2: 14.76 ft [29.52 ft], 2, 0, 2. 5) Utility building Unit-1: 22.96 ft [32.80 ft], 3, 0, 3. 6) Office building: 45.92 ft [32.80 ft], 3, 0, 3. 7) Utility shed unit-2: 14.76 ft [29.52 ft], 2, 0, 2. 8) Staff quarter: 18.04 ft [36.08 ft], 3, 0, 3. 9) Medical Center shed: 1 ft [10.0 ft], 1, 0, 1. 10) Yarn Shed: 1 ft [14.76 ft], 1, 0, 1. 11) Weaving shed unit-1: 14.76 ft [29.52 ft], 2, 0, 2. 12) Warping shed: 14.76 ft [29.52 ft], 2, 0, 2. 13) Towel shed with basement: 11.48 ft [22.96 ft], 2, 1, 3.
Approximate Building Area (SF):	Total area of buildings in the factory premises: 1080054.00 sft. Building wise breakdown as follows: 1) Three story RCC Accessories Building: 43980.00 sft, 2) Single story pre-fabricated Processing shed: 81000.00 sft, 3) Three story pre-fabricated chemical godown shed: 24600.00 sft, 4) Two story pre-fabricated Weaving Shed



	<p>Unit-2: 232321.00 sft, 5) Two story RCC utility building with pre-fabricated shed at roof unit-1: 15942.00 sft, 6) Three story RCC office building: 30813.00 sft, 7) Two story pre-fabricated utility shed unit-2: 32640.00 sft, 8) Three story RCC staff quarter: 45000.00 sft, 9) Single story Medical Center, Child Care and pump room pre-fabricated shed: 2175.00 sft, 10) Single story pre-fabricated grey & yarn Shed: 72546.00 sft, 11) Two story pre-fabricated weaving shed unit-1: 172000.00 sft, 12) Two story pre-fabricated warping shed: 83928.00 sft, 13) Two story pre-fabricated towel shed with basement: 243109.00 sft.</p>
<p>Date of Building Construction:</p>	<p>Factory personnel informed the date of construction as follows: 1) Accessories Building: Started in 2006 and finished in 2008, 2) Processing shed: Started in 2005 and finished in 2006, 3) Chemical godown shed: Started in 2007 and finished in 2008, 4) Weaving Shed Unit-2: Finished in 2007, 5) Utility building unit-1: Started in 2005 and finished in 2007, 6) Office building: Started in 2006 and finished in 2007, 7) Utility shed unit-2: Started in 2007 and finished in 2009, 8) Staff quarter: Started in 2007 and finished in 2008, 9) Medical Center shed: Started in 2011 and finished in 2012, 10) Grey & yarn Shed: Started in 2011 and finished in 2012, 11) Weaving shed unit-1: Started in 2005 and finished in 2007, 12) Warping shed: Started in 2006 and finished in 2007, 13) Towel shed with basement: Started in 2009 and finished in 2012.</p>
<p>Date of Last Building Renovation/Addition:</p>	<p>No record for date of building renovation or addition was found from factory personnel.</p>
<p>Ancillary Structures in Complex:</p>	<p>1) Three story RCC Accessories Building, 2) Three story pre-fabricated chemical godown shed, 3) Two story RCC utility building with pre-fabricated shed at roof unit-1, 4) Three story RCC office building, 5) Two story pre-fabricated utility shed unit-2, 6) Three story RCC staff quarter, 7) Single story Medical Center, Child Care and pump room pre-fabricated shed, 8) Single story pre-fabricated grey & yarn Shed,</p>
<p>Approximate Ancillary Structures Area (SF):</p>	<p>1) Three story RCC Accessories Building: 43980.00 sft (Ground floor: 14660.00 sft, 1st Floor: 14660.00 sft, 2nd Floor: 14660.00 sft), 2) Three story pre-fabricated chemical godown shed: 24600.00 sft (Ground floor: 8200.00 sft, 1st Floor: 8200.00 sft, 2nd floor: 8200.00 sft), 3) Two story RCC utility building with pre-fabricated shed at roof unit-1: 15942.00 sft (Ground floor: 6721.00 sft, 1st floor: 6721.00 sft, 2nd floor area: 2500.00 sft), 4) Three story RCC office building: 30813.00 sft (Ground floor: 10271.00 sft, 1st floor: 10271.00 sft, 2nd floor: 10271.00 sft), 5) Two story pre-fabricated utility shed unit-2: 32640.00 sft (Ground floor: 16320.00 sft, 1st floor: 16320.00 sft), 6) Three story RCC staff quarter: 45000.00 sft (Ground floor: 15000.00 sft, 1st Floor: 15000.00 sft, 2nd floor: 15000.00 sft), 7) Single story Medical Center, Child Care and pump room pre-fabricated shed: 2175.00 sft, 8) Single story pre-fabricated grey & yarn Shed: 72546.00 sft.</p>
<p>Number of Occupants:</p>	<p>Total number of occupants: 4883. 1) Three Story RCC Accessories Building: 45, 2) Single story pre-fabricated Processing shed: 920, 3) Three story pre-fabricated chemical godown shed: 25, 4) Two story pre-fabricated Weaving Shed Unit-2: 1230, 5) Two story RCC utility building with pre-fabricated shed at roof unit-1: 14, 6) Three story storied RCC office building: 135, 7) Two story storied pre-fabricated utility shed unit-2: 7, 8) Three story RCC staff quarter: 79, 9) Single story Medical Center, Child Care and pump room pre-fabricated shed: 16, 10) Single story pre-fabricated grey & yarn Shed: 320, 11) Two story pre-fabricated weaving shed unit-1: 1320, 12) Two story pre-fabricated warping shed: 225, 13) Two story pre-fabricated towel shed with basement: 547.</p>
<p>Number of Ancillary Levels (Stories):</p>	<p>Information provided below as per following format: Highest occupied floor level [Height up to roof], Stories above grade, Stories below grade, Occupied level. 1) Accessories Building: 45.92 ft [68.88 ft], 3, 0, 3. 2) Chemical godown shed: 45.92 ft [68.88 ft], 3, 0, 3. 3) Utility building Unit-1: 22.96 ft [32.80 ft], 3, 0, 3. 4) Office building: 45.92 ft [32.80 ft], 3, 0, 3. 5) Utility shed unit-2: 14.76 ft [29.52 ft], 2, 0, 2. 6) Staff quarter: 18.04 ft [36.08 ft], 3, 0, 3. 7) Medical Center, Child Care and pump room pre-fabricated shed: 1 ft [10.0 ft], 1, 0, 1. 8) Grey & yarn Shed: 1 ft [14.76 ft], 1, 0, 1.</p>
<p>Occupancy Type:</p>	<p>1) Three story RCC Accessories Building: [Ground Floor: H2 (Accessories storage), 1st Floor: H2 (Finish goods storage), 2nd Floor: H2 (Finish goods storage)], 2) Single story pre-fabricated Processing shed: G2 (Processing), 3) Three story pre-fabricated chemical godown shed: [Ground Floor: J2 (Chemical store), H2 (General store), K (Work shop), 1st floor: H2 (General store), E4 (Canteen), E4 (Prayer area), 2nd floor: E4 (Canteen), J1 (Kitchen)], 4) Two story pre-fabricated Weaving Shed Unit-2: [Ground Floor: G2 (Weaving), 1st Floor: G2 (Cutting, Sewing)] and see the description.</p>



<p>Construction Type:</p>	<p>1) Three story RCC Accessories Building: Type 1, 2) Single story pre-fabricated Processing shed: Non-rated, 3) Three story pre-fabricated chemical godown shed: Non-rated, 4) Two story pre-fabricated Weaving Shed Unit-2: Non-rated, 5) Two story RCC utility building with pre-fabricated shed at roof unit-1: [Ground Floor to 1st Floor Type 1, 2nd floor: Non-rated (only ceiling)], 6) Threestory RCC office building: Type 1, 7) Two story pre-fabricated utility shed unit-2: Non-rated, 8) Two story RCC staff quarter: Type 1, 9) Single story Medical Center, Child Care and pump room pre-fabricated shed: Non-rated, 10) Single story pre-fabricated grey & yarn Shed: Non-rated, 11) Two story pre-fabricated weaving shed unit-1: Non-rated, 12) Two story pre-fabricated warping shed: Non-rated, 13) Two story pre-fabricated towel shed with basement: Non-rated.</p>
<p>Height of Highest Occupied Floor Level Above Grade:</p>	<p>1) Three story RCC Accessories Building: 14 m or 45.92 ft, 2) Single story pre-fabricated Processing shed: 30 cm or 1 ft above grade, 3) Three story pre-fabricated chemical godown shed: 14 m or 45.92 ft, 4) Two story pre-fabricated Weaving Shed Unit-2: 4.50 m or 14.76 ft, 5) Two story RCC utility building with pre-fabricated shed at roof unit-1: 7 m or 22.96 ft, 6) Three story RCC office building: 14 m or 45.92 ft, 7) Two story pre-fabricated utility shed unit-2: 4.50 m or 14.76 ft, 8) Three story RCC staff quarter: 5.50 m or 18.04 ft, 9) Single story Medical Center, Child Care and pump room pre-fabricated shed: 30 cm or 1 ft above grade, 10) Single story pre-fabricated grey & yarn Shed: 30 cm or 1 ft above grade, 11) Two story pre-fabricated weaving shed unit-1: 4.50 m or 14.76 ft, 12) Two story pre-fabricated warping shed: 4.50 m or 14.76 ft, 13) Two story pre-fabricated towel shed with basement: 3.50 m or 11.48 ft.</p>




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:	All the existing doors, opening, penetrations and ducts along the required fire rated barriers or assemblies in the assessed buildings were found non-rated. Some major locations are mentioned below. The walls at ground floor level of 2 story RCC utility building with pre-fabricated shed at roof unit-1 having generator room, compressor room but they are not properly rated separation as separated wall is open. Another compressor room beside of generator room is open. Also there is penetration in wall and roof. Such unprotected openings are not allowed according to Alliance Standard Part 4 Section 4.6.
Source of Findings:	Visual Assessment: There are some openings are visualized during time of audit.
Suggested Plan of Action:	Provide opening protective at all windows and other openings on all the fire rated wall across the entire premises as per Alliance standard part 4, section 4.6.
Suggested Deadline Date:	27 Sep 2014
Standard:	Includes doors, windows, ducts, piping, etc. Reference Alliance Standards Part 4 Section 4.6 Opening Protectives and Section 4.7 Penetrations
Question:	Are exit enclosures provided with fire-resistive rated construction barriers?
Priority Level:	High
Non-Compliance Level:	3
Description:	There are 7 nos of stairs in the weaving unit-2 from which 4 nos. of stair have fire rated door(Without credible certificate) and others are not. The exit enclosure of those of the stairs is not properly fire rated as per Alliance Standard. In Utility Unit-1 building, exit stair enclosure are having glass window. Same scenarios are found in other buildings.
Source of Findings:	Visual Assessment: In weaving Unit-2, exit enclosure are not properly fire rated as well as utility u-1 having the enclosure of glass window.
Suggested Plan of Action:	Provide outward opening, side-swinging, self-closing, non-lockable fire doors of 1.5 hours rating in all stairwell enclosures as per Alliance standard part 4 section 4.5. Consult a qualified fire protection engineer to design the required rated construction barriers.





Suggested Deadline Date:	27 Sep 2014	
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation	
Question:	Are shafts provided with the minimum fire-resistance rating?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Cargo lift connecting Mezzanine and GF of Towel building stories has no fire-resistance rating of 1 hour and also the openings are not protected with 0.75 hr fire protective opening assemblies as required in accordance with Alliance Standards Part 4 Section 4.5.7.	
Source of Findings:	Visual Assessment: Cargo Lift of Towel building are not fire protected.	
Suggested Plan of Action:	Provide a cargo lift enclosure of required rating by constructing the enclosure with rated material of required thickness. Protect the openings of shaft enclosure by providing rated opening protective.	
Suggested Deadline Date:	27 Sep 2014	
Standard:	Reference Alliance Standards Part 4 Section 4.5.7.1 through 4.5.7.3	



Question:	Are separations between hazards provided with fire-resistive rated construction barriers.
Priority Level:	Medium
Non-Compliance Level:	3
Description:	There are chemical stores in single story prefabricated processing shed and 3 story prefabricated towel shed that are not properly fire separated. A diesel drum used for fire pump beside 2 story RCC utility building with pre-fabricated shed at roof unit-1 are not fire separated. There are no proper separations between store and kitchen on 1st floor of 3 story prefabricated chemical warehouse shed; between canteen and kitchen on 2nd floor of 3 story prefabricated chemical warehouse shed; between store and production area on ground floor of 3 story prefabricated towel shed; between weaving and store on ground floor of 2 story prefabricated weaving shed Unit-2; and between production shed and Generator room. All the mentioned issues are non-compliant with Section 4.5 and BNBC Table 3.2.1 (pg-10352).
Source of Findings:	Photograph: Photo-1 & Photo1.1: there are chemical stores at single story prefabricated processing shed and 3 story prefabricated towel shed that are not properly fire separated. Photo-2: A diesel drum used for fire pump beside 2 story RCC utility building with pre-fabricated shed at roof unit-1 are not fire separated. Photo-3: No proper separation between store and kitchen on 1st floor of 3 story prefabricated chemical warehouse shed. Photo-4: No proper separation between canteen and kitchen on 2nd floor of 3 story prefabricated chemical warehouse shed. Photo-5: No proper separation between store and production area on ground floor of 3 story prefabricated towel shed. Photo-6: No proper separation between weaving and store on ground floor of 2 story prefabricated weaving shed Unit-2. Photo-7: No proper separation of compressor room located between production shed and Generator room., Visual Assessment: Separation between mixed occupancy of various buildings are noticed during visual assessment.
Suggested Plan of Action:	Provide fire-resistive rated construction barriers between hazard types following Table 4.4.1 of Alliance Standard or Table 4.1.1 from BNBC Part 4. Consult a qualified fire protection engineer to design the required rated construction barrier.
Suggested Deadline Date:	20 Dec 2014
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation







Fire Protection Systems

Question:	Does the building have a fire pump?
Priority Level:	High
Non-Compliance Level:	3
Description:	Fire pump is available, however it does not comply with the requirements of Alliance Standards and NFPA 20 as there are no documents regarding capacity of the pump available.
Source of Findings:	Visual Assessment: Dedicated fire pump is available.
Suggested Plan of Action:	Fire pump installation is to be tested for final acceptance in presence of Alliance and a final inspection of the installation shall be conducted by the Alliance prior to final acceptance of the installation. Acceptance testing of the installation shall be in accordance with NFPA 20, 22, and 24 testing requirements. Documentation of all testing shall be submitted to the Alliance for review prior to final acceptance.
Suggested Deadline Date:	20 Aug 2014
Standard:	Alliance Standard Part 5 Fire Protection Systems
Question:	Does the building have a Standpipe System?
Priority Level:	High
Non-Compliance Level:	2
Description:	Height of the highest occupied floor of accessories building, office building and chemical warehouse is 14.0 m (45.92 ft) . Therefore, class III standpipe system needs to be installed throughout the building at required stairwells as per Alliance Standard 5.4.2 and NFPA 14. But only class II standpipe system is installed in above mentioned buildings. There is no hydraulic design for the installed system. At roof, hose pressure was less than 4.5 bar. Other buildings and sheds are found connected to the class II type of standpipe system. Noted that the design of hydrant system throughout the building is approved from local fire defense department.
Source of Findings:	Visual Assessment: Class II type stand pipe system is available throughout the factory premise.
Suggested Plan of Action:	Install a standpipe system at required locations designed by a qualified fire protection engineer. The system is to be compliant with the requirements of NFPA 14. The hydraulic calculations should be reviewed by Alliance and





	review to be completed prior to start of work. All standpipe system installations shall be submitted for review by the Alliance for review prior to commencement of installation according to 5.4.3.2.	
Suggested Deadline Date:	27 Sep 2014	
Standard:	Does the building have a standpipe system installed where required. Alliance Standard Part 5 Section 5.4.2	
Question:	Standpipe system piping is free of mechanical damage, leakage, and corrosion?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	No proper standpipe system is installed in the building. There is corrosion in the standpipe system pipes at some locations.	
Source of Findings:	Visual Assessment: Rust is found in the standpipe hydrant system.	
Suggested Plan of Action:	Repair or replace damaged piping at these locations where corrosion is found. Repairs and replacements must comply with NFPA 14 and NFPA 25 Chapter 6.	
Suggested Deadline Date:	20 Dec 2014	
Standard:	NFPA 25 Chapter 6 Standpipe and Hose Systems	
Question:	Fire extinguishers are inspected, tested, and maintained as required.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Extinguishers are inspected monthly by factory's concerned people. No relevant document was found in support of i) Annual maintenance of extinguishers by a servicing agent and ii) Annual testing of nozzle of CO2 extinguisher.	
Source of Findings:	Document Review: Extinguisher monthly inspection documents are found.	
Suggested Plan of Action:	Fire extinguishers are to be inspected, tested, and maintained in accordance with NFPA 10 Chapter 7.	
Suggested Deadline Date:	20 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 control panel is available in the factory, but currently there is no monitoring company in Bangladesh. Fire service and civil defense is not capable of monitoring fire alarm and detection systems of the factory.
Source of Findings:	Visual Assessment: Centrally monitored fire alarm and detection system is available but Fire Service and Civil Defense are not directly connected.
Suggested Plan of Action:	Arrange for direct connection of the fire alarm system to a central monitoring station or Fire Service and Civil Defense. 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:	02 Aug 2014
Standard:	Alliance Standard Part 5 Section 5.7.5 Monitoring
Question:	Are portable fire extinguishers installed throughout the building at required locations and mounted at the correct height?
Priority Level:	Medium
Non-Compliance Level:	1
Description:	Portable extinguishers are installed within 100 ft travel distance but at ground floor of utility unit-1 building, height of installed extinguisher (weight of more than 40 lb) is found mounted higher than 3.5 ft.
Source of Findings:	Visual Assessment: Portable extinguisher installation height is not appropriate as per Alliance & NFPA Standard.
Suggested Plan of Action:	Fire extinguishers having a gross weight greater than 18.14 kg (40 lb) (except wheeled types) shall be installed so that the top of the fire extinguisher is not more than 1.07 m (3½ ft) above the floor (NFPA 10.6.1.3.8) as mentioned in clause 5.6.2.2.
Suggested Deadline Date:	27 Sep 2014
Standard:	BNBC Part 4 Section 4.10 and NFPA 10
Question:	Are inspection, maintenance, and testing procedures of the standpipe and hose system documented and up to date? Including inspection and testing of hoses if provided.





Priority Level:	Low
Non-Compliance Level:	2
Description:	There is no proper standpipe system in the building. Inspection, maintenance and testing procedures of the existing standpipe and hose is not documented and up to date as per NFPA 25.
Source of Findings:	Document Review: Documents of the existing standpipe system is not comply with NFPA 25.
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 Dec 2014
Standard:	Reference NFPA 25 Chapter 6 Standpipe and Hose Systems Table 6.1.1.2
Question:	Is signage for the standpipe system installed at required locations and on required components?
Priority Level:	Low
Non-Compliance Level:	2
Description:	There is no proper standpipe system installed in the building. Signage for the standpipe system is not installed.
Source of Findings:	Visual Assessment: Signage of the existing standpipe is not found.
Suggested Plan of Action:	Install required identification signs at the noted locations. Signage must comply with NFPA 14 Chapter 6.
Suggested Deadline Date:	16 Aug 2014
Standard:	Reference NFPA 14 Chapter 6
Question:	Are inspection, maintenance, and testing procedures of the fire pump documented and up to date?
Priority Level:	Low
Non-Compliance Level:	2
Description:	Inspection, maintenance, and testing procedures for the fire pump are not documented and up-to-date.
Source of Findings:	Document Review: Documents regarding fire pump inspection, maintenance and testing not found.
Suggested Plan of Action:	Establish an inspection, maintenance, and testing program for the fire pump. Program must comply with NFPA 25.





Suggested Deadline Date:	20 Dec 2014
Standard:	Reference NFPA 25 Chapter 8 Fire Pumps

Means of Egress

Question:	Exit discharge is directly to the exterior of the building, unless the requirements of 6.17.2 are met, at grade or provides direct access to grade. Exit discharge shall not reenter a building.
Priority Level:	High
Non-Compliance Level:	3
Description:	At ground floor level of 2 story pre-fabricated weaving shed unit-1, there are 4 emergency exits, Two (2) at front of the building leading directly to street and other two(2) exit at back side of the building are obstructed to go to the discharge point. This is violation of Alliance Standard Part 6 Section 6.17. At ground floor of the utility building, exit discharge is directly to the street but the exit enclosure are not properly fire protected as there has opening of maintenance room which violets the Alliance standard.
Source of Findings:	Visual Assessment: Exit discharge is not directly to the exterior of the weaving building and in utility building exit enclosure are not properly fire rated.
Suggested Plan of Action:	Provide rated unobstructed 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:	27 Sep 2014
Standard:	Alliance Standard Part 6 Section 6.17 Exit Discharge. See Section 16.7.2 and 16.7.3 for exceptions.



Question:	Exit access corridors serving an occupant load exceeding 30 are separated by walls having a fire-resistance rating of 1 hr.
Priority Level:	High
Non-Compliance Level:	3
Description:	Exit access corridor on 1st floor of 3 story RCC Accessories Building and 3 story RCC office building is not protected by 1 hour fire-resistance construction. On one side of the corridor there is brick wall but exist opening which are not provided with 0.75 hour rated opening protective assemblies as required by Alliance Standard Part 6 Section 6.3.1.1. Same observation is found some other buildings in the factory. In ground floor of weaving unit-2 emergency exit back side of the building. In 3 story pre-fabricated towel shed, mezzanine floor exit is directly to the production floor which is non-compliance as per Alliance Standard.
Source of Findings:	Visual Assessment: Exit corridor is not found properly protected.
Suggested Plan of	Provide fire-resistive rated assemblies at the required exit access corridors.





Action:	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 in accordance with 4.5 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.
Suggested Deadline Date:	27 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:	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:	3
Description:	In the 2-story prefabricated weaving shed unit-1, there is only one exit at 1st floor of the building but occupant load is 210, which is non-compliant as per Section 6.6. Other buildings' and sheds' exits meet the requirement.
Source of Findings:	Visual Assessment: Only one exit is available at 1st floor of the 2 story prefabricated weaving shed unit-1.
Suggested Plan of Action:	Provide an additional exit at 1st floor and an external stair to comply with Alliance Standard to meet the maximum travel distance requirement, i.e. keep it within 23 m.
Suggested Deadline Date:	27 Sep 2014
Standard:	Alliance Standard Part 6 Section 6.6 Number of Means of Egress
Question:	Means of egress are free from impediments, obstructions, and stored materials.
Priority Level:	High
Non-Compliance Level:	3
Description:	Means of egress was not free from impediments, obstructions and stored materials at ground floor of 2 story pre-fabricated weaving shed unit-1, 3 story RCC Accessories Building and some other locations.
Source of Findings:	Visual Assessment: Aisles are obstructed at different locations of different buildings.
Suggested Plan of Action:	Keep means of egress continuously free and clear of all obstructions or impediments to full instant use in the case of fire or other emergency.
Suggested Deadline Date:	05 Jul 2014





Standard:	Alliance Standard Part 6 Section 6.3.8 Impediments to means of egress and Section 6.3.9 Reliability	
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 sliding and sewing steel leaf doors with locking arrangements at different egress locations of accessories building, processing buildings and others.	
Source of Findings:	Visual Assessment: Door locks were found in different doors of means of egress.	
Suggested Plan of Action:	Remove existing gates and doors in the means of egress including all locking devices. Install doors with approved panic hardware that cannot be locked in the direction of egress under any conditions.	
Suggested Deadline Date:	19 Jul 2014	
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
Question:	Doors along the path of egress have a minimum width of 0.8 m (32 in) and have required ratings.	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Door widths are more than 0.8m at all of the buildings and sheds in the factory premises, but required doors along the path of egress (i.e. doors leading to staircase) at each floors of the buildings are not fire door and do not have rating of 1.5 hour as required in accordance with section 6.3.1.2.2 and 4.6.	
Source of Findings:	Visual Assessment: Door width is found 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:	27 Sep 2014	
Standard:	Alliance Standard Part 6 Section 6.5.6 Minimum Widths. Increased occupant loads will require a door width greater than 0.8 m.	



Question:	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:	3
Description:	Landings are not provided on both sides of doors used along the path of egress at stitching section of 2 story prefabricated weaving shed unit-1.
Source of Findings:	Visual Assessment: Both side landings are not found at stitching section of 2 story prefabricated weaving shed unit-1.
Suggested Plan of Action:	Exit point from the floors need to be reworked so that there is a landing on both sides of the exit doors, with doors swinging in the direction of exit travel. New swinging door location will need to be revised from current sliding door location, 2-hour rating will need to be extended to new door location.
Suggested Deadline Date:	27 Sep 2014
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates
Question:	All doors in a means of egress are of the side-hinged swinging type.
Priority Level:	High
Non-Compliance Level:	2
Description:	There are sliding doors and steel leaf doors at each floor of the buildings with locking arrangements at each egress location.
Source of Findings:	Visual Assessment: All doors in a means of egress are not of the side-hinged swinging type.
Suggested Plan of Action:	Replace all collapsible gates in means of egress with side-hinged swinging type fire doors of proper width and with ratings in accordance with Section-6.8.1.
Suggested Deadline Date:	27 Sep 2014
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates
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:	2
Description:	Parapet height is 32 inches on the roof of 2 story RCC utility building with prefabricated shed at roof unit-1, which is non-compliant with Alliance Standard.
Source of Findings:	Visual Assessment: Parapet height is 32 inches on the roof.





Suggested Plan of Action:	Provided parapets or guards for all occupied roofs of a minimum height of 1067 mm (42 in).	
Suggested Deadline Date:	20 Dec 2014	
Standard:	Alliance Standard Part 6 Section 12 Handrails and Guards	
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. Industrial grade lights are found only at exit point.	
Source of Findings:	Visual Assessment: Sufficient illumination was not found during audit.	
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:	20 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:	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 along the path of egress but 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 Alliance requirements.	
Source of Findings:	Visual Assessment: Exit signs are found at every exit point.	
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:	20 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:	Exit signs are provided with no battery backup and are not continuously illuminated.
Source of Findings:	Visual Assessment: Battery backup for exit signs is not found.
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 as per Section 6.11.
Suggested Deadline Date:	20 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 for illumination of exit signs was found as required in section 10.12.1.4.
Source of Findings:	Document Review: No relevant record is available.
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 lights are to be tested on a monthly basis. Functional testing of battery powered signs is provided for a minimum 90 minutes once per year.
Suggested Deadline Date:	02 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:	There are many stairs with handrail on only one side, which is not allowed as per clause 6.9.2.4. and 6.12.1.2.





Source of Findings:	Visual Assessment: Handrails are not provided on both sides of the stairs.	
Suggested Plan of Action:	Provide handrails on both side of each stairway. Provide handrail of height between the range 865 mm (34 in) and 965 mm (38 in).	
Suggested Deadline Date:	20 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.9 Stairs and 6.12 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:	1	
Description:	Occupant loads are not posted in a conspicuous space near the main exits or exit access doorways in all the buildings and sheds of the factory premises.	
Source of Findings:	Visual Assessment: Occupant loads are not posted.	
Suggested Plan of Action:	Occupant loads must be posted for every assembly and production floor in a conspicuous space near the main point of egress.	
Suggested Deadline Date:	02 Aug 2014	
Standard:	Alliance Standards Part 6 Section 6.4.4 Posting of Occupant Load	
Question:	Exit signs have appropriate illumination levels and contrasting graphics.	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	Some exit signs do not have appropriate illumination levels and contrasting graphics as required.	
Source of Findings:	Visual Assessment: Appropriate illumination levels and contrasting graphics were absent.	
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/m ² may also be used.	
Suggested Deadline Date:	20 Dec 2014	
Standard:	Alliance Standard Part 10 Section 10.12.1 Exit Signs	
Question:	Stair designation signs are provided at each floor entrance from the stair to the floor in English and Bengali. Signs indicate the name of the stair and the floor	





	level. Signs are posted adjacent to the door.	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	Stair designation signs are not provided at each floor entrance from the stair to the floor.	
Source of Findings:	Visual Assessment: Stair designation signs are not provided at each floor entrance.	
Suggested Plan of Action:	Install signage adjacent to each stair door indicating the stair name and the floor level at the noted locations in accordance with Section-6.9.3.1.	
Suggested Deadline Date:	02 Aug 2014	
Standard:	Alliance Standard Part 6 Section 6.9 Stairs	
Fire Safety Programs		
Question:	Storage areas underneath the cutting tables are clear of combustibles.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Fabrics are stored underneath the production machine tables of 1st floor of 2 story prefabricated weaving shed unit-1.	
Source of Findings:	Visual Assessment: Fabrics are stored underneath the tables.	
Suggested Plan of Action:	Remove all combustibles stored underneath the cutting tables at the noted locations. Establish and enforce a housekeeping policy to keep these areas clear of storage.	
Suggested Deadline Date:	31 Jul 2014	
Standard:	Alliance Standard Part 17 Section 13.7.2 Cutting tables.	
Question:	Training programs are implemented and documented in accordance with the Alliance Safety Training Curriculum.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	No record was available for Training program in accordance with the Alliance Safety Training Curriculum.	
Source of Findings:	Document Review: Relevant documents were not found.	
Suggested Plan of Action:	Impart training in accordance with Alliance Safety Training Curriculum and keep record with proper documentation.	



Suggested Deadline Date:	02 Aug 2014	
Standard:	Alliance Standards Part 13	
Question:	Are there additional areas of non-compliance to report?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Electrical connections were found in store rooms at some locations. Housekeeping and waste removal was not appropriate as wastage materials were stored in front of building.	
Source of Findings:	Visual Assessment: Electrical connections were found among combustibles, and waste removal was not appropriate.	
Suggested Plan of Action:	Combustible materials must not be stored by electrical connections. Housekeeping must be maintained regularly.	
Suggested Deadline Date:	31 Aug 2014	
Standard:	Not Applicable	