INITIAL FIRE ASSESSMENT REPORT (FAR)

Factory Name:	**Standard Stitches Ltd. (Unit 2)**
Address:	**Plot #10/4 Karnapara Genda Savar Savar Dhaka Bangladesh**
Assessor:	**Sumerra**
Date:	**26 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:	Standard Stitches Ltd. (Unit 2)
Address:	Plot #10/4 Karnapara Genda Savar Savar Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Savar
Zip Code:	1340
Audit Duration:	2 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	27-May-14
Final Report Date:	8-Jul-14
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	3
Is the building(s) owned or rented by the Factory:	Owned
Number of Building Levels (Stories):	6
Approximate Building Area (SF):	51284 sq ft
Date of Building Construction:	2006
Date of Last Building Renovation/Addition:	2013
Ancillary Structures in Complex:	2
Approximate Ancillary Structures Area (SF):	1003 sq ft
Number of Occupants:	995

Number of Ancillary Levels (Stories):	1
Occupancy Type:	G2 (Moderate hazard factory building)
Construction Type:	Type I
Height of Highest Occupied Floor Level Above Grade:	66 ft.

ASSESSMENT FINDINGS

Fire Protection Construction

Question:	Are exit enclosures provided with fire-resistive rated construction barriers?
Priority Level:	High
Non-Compliance Level:	3
Description:	The exits leading to stairs are not protected as the exit doors are made of non-fire rated material nor are they separated by fire rated assemblies. In north-east stair enclosure, there are adjacent windows from factory floor with non fire rated assemblies . In south-east stair, there is opening from factory floor . Due to presence of these openings, stairs are not protected.
Source of Findings:	Photograph: Typical door Openings in exit enclosure
Suggested Plan of Action:	Factory will need to install fire rated door assemblies at all exits (1.5 hour rating). Fire doors assemblies shall conform to NFPA 252, BS 476 Part 22, EN 1364-1, GB 12955-2008, or IS 3614. Part II. Doors must remain in closed position or be of self-closing type. 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 . Assure no exposures in exterior walls of exit enclosures including angular exposures or unprotected openings into production areas. Fire rated window assemblies should be installed or windows in enclosure sealed with fire rated materials
Suggested Deadline Date:	26 Sep 2014
Standard:	Reference Alliance Standards Part 4 Section 4.5 Separation

Question:	Are openings and penetrations through rated walls and/or assemblies protected?
Priority Level:	High
Non-Compliance Level:	2
Description:	Floor to floor penetration is observed through ceiling / floor hole made for electrical pipes.
Source of Findings:	Photograph: Floor to Floor penetrations
Suggested Plan of Action:	Factory should seal the floor to floor penetrations with appropriate materials to meet fire rating of floors. Penetrations of fire resistive rated assemblies shall be protected with a listed through penetration firestop system tested in accordance with ASTM E814.
Suggested Deadline Date:	26 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 separations between hazards provided with fire-resistive rated construction barriers.	  
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Storage is observed at different floors like, 5th floor north and south side, 1st floor west part (Finished goods), GF east side (ware house). These areas are not separated from other occupancies by fire rated construction.	
Source of Findings:	Photograph: Storage areas not separated from other occupancies.	
Suggested Plan of Action:	Storage Areas shall be separated from the surrounding occupancy with a minimum 1 hour construction. It is recommended to retain a qualified fire engineer to design enclosures or install fire rated assemblies.	
Suggested Deadline Date:	26 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:		
Description:		
Source of Findings:		
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Are certificates of occupancy provided for each building or ancillary structure?	
Fire Protection Systems		
Question:	Does the building have a Standpipe System?	
Priority Level:	High	
Non-Compliance Level:	2	

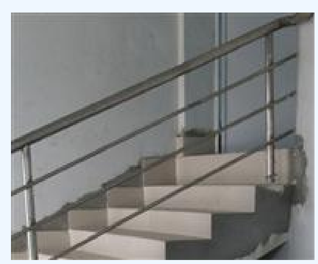
Description:	In each floor inside factory floor there are 2 Class II (38 mm) hose connections are there. There is no Class I (65 mm) hose connection in the stairwell. However, they have Class I connections in GF (2 connections).
Source of Findings:	Visual Assessment: No Class I connections in stairwells
Suggested Plan of Action:	Install or revise existing standpipe system at required locations designed by a qualified fire protection engineer. System should include rated fire pump and Class III standpipe hose connections (65 mm) in each stairwells at each floor level including occupiable roofs.
Suggested Deadline Date:	26 Sep 2014
Standard:	Does the building have a standpipe system installed where required. Alliance Standard Part 5 Section 5.4.2
Question:	Are fire department connections provided and clearly identified for the Fire Protection Systems?
Priority Level:	Medium
Non-Compliance Level:	3
Description:	As noted elsewhere, factory does not have a compliant standpipe system (hose reel system only) and does not have fire department connections as required.
Source of Findings:	Visual Assessment: No FDC observed
Suggested Plan of Action:	Upon installation of compliant standpipe system, fire department (Siamese) inlet connections should be installed to allow fire department pumper equipment to supplement the fire protection systems. Fire department outlet connections shall be provided to allow fire department pumper vehicles to draw water from ground-level or underground water storage tanks. Connections shall match the Fire Service and Civil Defense hose thread standard. Signage for standpipe system shall comply with NFPA 14 Chapter 6 (e.g. no sign on Fire Department connection indicating STANDPIPE in 1 in lettering)
Suggested Deadline Date:	26 Sep 2014
Standard:	Alliance Standard Part 5 Section 5.5.4 Fire Department Connections
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:	3
Description:	The standpipe system hose system are inspected and documented but there are no maintenance records.

Source of Findings:	Document Review: No maintenance records kept.
Suggested Plan of Action:	The standpipe system needs to be evaluated for compliance with the design pressure and flow demands of NFPA 14 or BNBC as cited in 5.4.3. Standalone standpipe systems shall be confirmed to meet the local BNBC requirements with a minimum 450 kPa (65 psi) pressure at the hydraulically most remote hose connection or NFPA 14. This testing should be documented and available for review. Maintenance records should be kept.
Suggested Deadline Date:	26 Sep 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:	3
Description:	As noted elsewhere, factory does not have a compliant standpipe system (hose reel system only) and does not signage compliant with NFPA 14
Source of Findings:	Visual Assessment: Proper signage not provided
Suggested Plan of Action:	Upon installation of compliant standpipe system, include required identification signs at the noted locations. Signage must comply with NFPA 14.
Suggested Deadline Date:	26 Sep 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:	3
Description:	There are no maintenance records available. However, a basic checklist is available. Fire pump is not monitored by alarm system.
Source of Findings:	Document Review: No maintenance records.
Suggested Plan of Action:	Establish an inspection, maintenance, and testing program for the fire pump. Program must comply with NFPA 25. Additionally, all valves controlling fire pumps shall be electrically supervised by a listed fire alarm system control unit. Individual supervisory signals shall be provided for the following conditions of the fire pump: 1) Fire Pump running 2) Fire Pump loss of power in any phase 3. Fire Pump phase reversal. Activation of a fire pump supervisory signal shall initiate a supervisory alarm at the system control panel and at the remote annunciator. All maintenance activities must be documented.

Suggested Deadline Date:	19 Dec 2014	
Standard:	Reference NFPA 25 Chapter 8 Fire Pumps	
Means of Egress		
Question:	Doors are not locked in the direction of egress under any conditions. All hasps, locks, slide bolts, and other locking devices have been removed where required.	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	The doors were unlocked during the audit. However, the doors could be locked during occupancy and there is not a good system in place to ensure this does not occur.	
Source of Findings:	Visual Assessment: no locking system	
Suggested Plan of Action:	Remove all locking devices form all doors to exits / means of egress. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	
Suggested Deadline Date:	21 Jul 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:	3	
Description:	Most exit doors are sliding/collapsible type doors.	
Source of Findings:	Photograph: Improper Doors	
Suggested Plan of Action:	Remove all collapsible at the exit stairs and along all portions of the means of egress. Replace with side-hinged swinging type doors in compliance with Standard (see other actions regarding fire rated door assemblies).	
Suggested Deadline Date:	26 Sep 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:	2	

Description:	Doors do not have required ratings.	
Source of Findings:	Visual Assessment: Doors without required ratings.	
Suggested Plan of Action:	Remove existing gates and unrated doors in the means of egress. Install approved fire rated doors that are listed, permanently labeled, automatic-closing, in compatible fire rated frames with latching hardware.	
Suggested Deadline Date:	31 Dec 2014	
Standard:	Alliance Standard Part 6 Section 6.5.6 Minimum Widths. Increased occupant loads will require a door width greater than 0.8 m.	
Question:	Interior exit stairways and ramps terminate at an exit discharge except where terminating at a rated exit passageway.	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	South-east stair discharge in GF is close to electrical control room (LT panel, change-over). This control room does not have fire resistant door.	
Source of Findings:	Visual Assessment: Improper exit termination	
Suggested Plan of Action:	Interior exit stairways and ramps shall terminate at an exit discharge except where terminating at an exit passageway is constructed to meet the same rating requirement as the exit that is being served and shall not be less than 1 hr fire-resistance rated construction, therefore, factory must provide a rated exit passage way between stairs and final exit discharge. This may be accomplished by providing fire rated door assembly on control room.	
Suggested Deadline Date:	26 Sep 2014	
Standard:	Alliance Standard Part 6 Section 6.14 Exit Enclosures	
Question:	Stairwells are not utilized as storage spaces.	 
Priority Level:	High	
Non-Compliance Level:	2	
Description:	Stairwells are used for storage in several areas throughout the factory.	
Source of Findings:	Photograph: Temporary storage in stairwells	
Suggested Plan of Action:	Storage in exit routes should be strictly prohibited. This may be part of the regular documented inspection provided by the fire safety team.	
Suggested Deadline Date:	21 Jul 2014	
Standard:	Alliance Standard Part 13 Section 13.9 Safety Inspections	

Question:	Aisles are provided with the minimum unobstructed clear width of 0.9 m (36 in) based on occupant loads.	
Priority Level:	High	
Non-Compliance Level:	1	
Description:	Some aisles are 34 inches.	
Source of Findings:	Visual Assessment: Aisles less than 36 inches	
Suggested Plan of Action:	Ensure all aisles meet width of 36 inches.	
Suggested Deadline Date:	26 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:	All occupied roofs are provided with parapets or guards with a minimum height of 1067 mm (42 in.).	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	There is parapet wall in the roof. However, the height of the parapet wall is 34 inch.	
Source of Findings:	Photograph: Parapet wall on roof	
Suggested Plan of Action:	Install parapets or guards with a minimum height of 1067 mm (42 in.) on occupied roof areas.	
Suggested Deadline Date:	19 Dec 2014	
Standard:	Alliance Standard Part 6 Section 12 Handrails and Guards	
Question:	Occupant loads are posted for every assembly and production floor in a conspicuous space near the main point of egress.	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	No loads are posted	
Source of Findings:	Visual Assessment: no posted occupant loads	
Suggested Plan of Action:	Post maximum occupant load for all areas (near exit)	
Suggested Deadline Date:	02 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:	3	
Description:	Illumination levels have not been assessed.	
Source of Findings:	Visual Assessment: observation of illumination levels.	
Suggested Plan of Action:	Illumination shall be a minimum of 10 lux for all corridors, exit doors and stairways. Illumination for aisles shall be a minimum of 2.5 lux.	
Suggested Deadline Date:	30 Nov 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 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:	3	
Description:	As per management, they test it regularly. However, functional testing for 90 min could not be verified.	
Source of Findings:	Document Review: Testing did not confirm function for 90 minutes	
Suggested Plan of Action:	Confirm through testing (light meter) or other certification that means of egress will have illumination of 10 lux for all corridors, exit doors, and stairways and no less than 90 min in the event of failure of normal lighting.	
Suggested Deadline Date:	21 Jul 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:	3	
Description:	Handrails are provided only on one side of all stairwells (height is ok)	
Source of Findings:	Photograph: Single Handrails	

Suggested Plan of Action:	Install handrails on both sides of all stairwells as per Alliance Standard part 6 Section 6.9 Stairs and 6.12 Handrails and Guards
Suggested Deadline Date:	19 Dec 2014
Standard:	Alliance Standard Part 6 Section 6.9 Stairs and 6.12 Handrails and Guards
Question:	Every door in a stair enclosure serving more than 5 stories is provided with re-entry unless it meets the requirements of Alliance Standards Part 6 Section 6.8.3.1.
Priority Level:	Medium
Non-Compliance Level:	3
Description:	Re-entry requirements have not been met per Alliance Standards Part 6 Section 6.8.3.1 as fire rated door assemblies with proper latching systems have not been installed. As noted in other areas, fire rated door assemblies are required for the exit enclosure.
Source of Findings:	Visual Assessment: No re-entry capability
Suggested Plan of Action:	During installation of fire rated door assemblies assure that every door in a stair enclosure serving more than 4 stories is provided with re-entry unless it meets the requirements of Alliance Standards Part 6 Section 6.8.3.1.
Suggested Deadline Date:	26 Sep 2014
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates
Question:	Ramps do not have a running slope greater than 1 in 8 (12.5 percent) and have handrails on both sides of the ramp.
Priority Level:	Medium
Non-Compliance Level:	3
Description:	Exit ramp from GF warehouse has higher slope than permitted.
Source of Findings:	Visual Assessment: Improper slope
Suggested Plan of Action:	Adjust ramp configuration to meet standard of running slope greater than 1 in 8 (12.5 percent).
Suggested Deadline Date:	19 Dec 2014
Standard:	Alliance Standard Part 6 Section 10 Ramps
Question:	Means of egress have a minimum ceiling height of 2.3 m (7 ft 6 in.) with projections from the ceiling not less than 2.03 m (6 ft 8 in.).
Priority Level:	Medium

Non-Compliance Level:	1
Description:	GF warehouse has a mezzanine floor (gallery). The hanging beam in mezzanine floor has reduced the height clearance significantly (around 5 ft height).
Source of Findings:	Visual Assessment: Measurement of ramp indicates to steep of slope
Suggested Plan of Action:	Revise means of egress from mezzaine so has a ceiling height of 2.3 m (7 ft 6 in.) with projections from the ceiling not less than 2.03 m (6 ft 8 in.).
Suggested Deadline Date:	26 Sep 2014
Standard:	Alliance Standard Part 6 Section 6.3.3 Headroom
Question:	Are there additional areas of non-compliance related to the Means of Egress?
Priority Level:	Medium
Non-Compliance Level:	1
Description:	In north-east stair , there is directional sign for going up also. This is confusing.
Source of Findings:	Visual Assessment: Directional arrow pointing up stairs.
Suggested Plan of Action:	Remove directional sign pointed up for exit.
Suggested Deadline Date:	21 Jul 2014
Standard:	Not Applicable
Question:	Stair designation signs are provided at each floor entrance from the stair to the floor in English and Bengali. Signs indicate the name of the stair and the floor level. Signs are posted adjacent to the door.
Priority Level:	Low
Non-Compliance Level:	3
Description:	Signs indicating floor level are posted adjacent to the door, however, stairs have not been designated.
Source of Findings:	Visual Assessment: No stair designation
Suggested Plan of Action:	Each stair should be designated with a unique identification (e.g. Stairwell 1). Signs indicate the name of the stair and the floor level. Additionally, stair signs should indicate if there is or is not roof access from the named stair.
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:	3	
Description:	Storage was observed under cutting tables.	
Source of Findings:	Photograph: combustibles under cutting tables, Visual Assessment: combustibles under cutting tables	
Suggested Plan of Action:	Storage underneath the cutting tables shall be kept clear of combustibles at all times	
Suggested Deadline Date:	06 Oct 2014	
Standard:	Alliance Standard Part 17 Section 13.7.2 Cutting tables.	
Question:	A hot-work permit program has been established.	
Priority Level:	Low	
Non-Compliance Level:	3	
Description:	The factory does not do a lot of hot-work activities, but there is no written permitting program as per Alliance Standards Part 13 Section 13.4 Hot Work Permit and NFPA 51B	
Source of Findings:	Document Review: No hot-work program.	
Suggested Plan of Action:	Develop a written hot work permit program. The program must comply with the requirements of NFPA 51B	
Suggested Deadline Date:	19 Dec 2014	
Standard:	Alliance Standards Part 13 Section 13.4 Hot Work Permit and NFPA 51B	
Question:	A Fire Safety Director position has been filled.	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	There is a fire committee but it is mainly managed by compliance department.	
Source of Findings:	Worker Interviews: Interview with Committee Memebers	
Suggested Plan of Action:	Create a Fire Safety Director position and provide sufficient training so that the individual is able to carry out the required duties.	
Suggested Deadline Date:	30 Nov 2014	

Standard:	Alliance Standards Part 13 Section 13.1 Fire Safety Director	