INITIAL FIRE ASSESSMENT REPORT (FAR)

Factory Name:	**Tusuka Processing Ltd**
Address:	**Konabari, Neelnagar, Gazipur Gazipur Dhaka Bangladesh**
Assessor:	**Uttaron Technologies**
Date:	**19 Jan 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:	Tusuka Processing Ltd
Address:	Konabari, Neelnagar, Gazipur Gazipur Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Gazipur
Zip Code:	1346
Audit Duration:	2 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date:	19 January 2014
Final Report Date:	Update once final report is complete (after all comments incorporated).
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex:	Four(1 Main Building, 3 Ancillary Buildings).
Is the building(s) owned or rented by the Factory:	Owned
Number of Building Levels (Stories):	Main Building: 9 storied R.C building.
Approximate Building Area (SF):	Main building area is 195,750 SF(approx).GF-8tH: 21,750 SF in each floor.
Date of Building Construction:	Constructed ten years ago(2004)
Date of Last Building Renovation/Addition:	No
Ancillary Structures in Complex:	There are 3 ancillary structure in complex. Ancillary-1: 4 storied R.C building. Ancillary-2: 2 storied R.C building. Ancillary-3: 1 storied shed building.
Approximate Ancillary Structures Area (SF):	Total area of the ancillary building is 53,200 SF. Ancillary-1: 26,320 SF(GF-3rd: 6,580 SF in each floor). Ancillary-2: 7,200 SF(GF: 3,600 SF, 1st: 3,600 SF). Ancillary-3: 19,680 SF.
Number of Occupants:	Total accupant of the main building is: 2080(GF: 200, 1st: 430, 2nd: 410, 3rd: 400, 4th: 250, 5th: 180, 6th:90, 7th: 40, 8th: 40) Ancillary-1: 150 (GF: 10, 1st: 20, 2nd: 60, 3rd: 60, Ancillary-2: 150 (GF: 75, 1st: 75) Ancillary-3: 120
Number of Ancillary Levels (Stories):	Ancillary-1: 4 storied R.C building. Ancillary-2: 2 storied R.C building. Ancillary-3: 1 storied shed building.

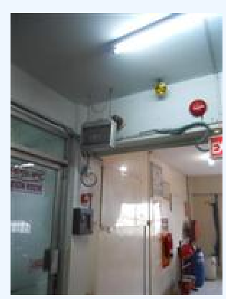
Occupancy Type:	G2
Construction Type:	Type-1
Height of Highest Occupied Floor Level Above Grade:	94 FT

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:	Found penetrations on the barrier walls at each floors used for steam lines and other utilities like compressed air pipes of building -1 and all shed, which are not properly sealed.
Source of Findings:	Photograph: Found penetrations on the barrier walls at each floors used for steam lines and other utilities.
Suggested Plan of Action:	Penetration of fire-resistive rated assemblies shall be protected with fire resistant protective assemblies. Need to be redone as per standards according to ASTM E814.
Suggested Deadline Date:	16 Oct 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:	Exits were not fully protected by continuous fire rated assemblies.
Source of Findings:	Visual Assessment: Openings were seen in the exit enclosures
Suggested Plan of Action:	Provide fire-resistive rated construction barriers and associated opening protection for exit enclosures in accordance with Alliance Standard Section 6.3.1.2. . Consult a qualified fire protection engineer to design the required rated construction barriers
Suggested Deadline Date:	16 Oct 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:	1
Description:	Found 02 nos lift shafts at building-1 with 10 inch thick RCC wall having 5 hours fire resistance rating. Lift doors are fabricated with non-rated materials.
Source of Findings:	Visual Assessment: Lift Door are not fire resistant construction.

Suggested Plan of Action:	Provide fire-resistive rated opening protection for rated walls of the lifts in accordance with Alliance Standard Sections 4.6. Consult a qualified fire protection engineer to design the required opening protectives or penetration systems.	
Suggested Deadline Date:	15 Oct 2014	
Standard:	Reference Alliance Standards Part 4 Section 4.5.7.1 through 4.5.7.3	
Fire Protection Systems		
Question:	Is the building protected by an automatic sprinkler system?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Automatic sprinkler system not found. As the height of the occupied floor level of building-1 is more than 94 ft so, an automatic sprinkler system is required. The height of building-2 is less than 75 ft so, building-2 & the shed building not required automatic sprinkler system.	
Source of Findings:	Visual Assessment: Automatic sprinkler system not found.	
Suggested Plan of Action:	Install an automatic sprinkler system throughout the building in accordance with NFPA 13 designed by a qualified fire protection engineer. Building-1 (Nine storied)height is more than 75 feet.	
Suggested Deadline Date:	16 Apr 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 Standpipe System?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Building-1 has 3 no. 2.5 dia GI (Galvanized Iron) riser pipe as which is not as per standard standpipe system and shades have 4 inch dia MS main pipe.	
Source of Findings:	Photograph: Building-1 has 3 no. 2.5 dia GI (Galvanized Iron) riser pipe as which is not as per standard standpipe system and shades have 4 inch dia MS main pipe.	
Suggested Plan of Action:	Install a standpipe system at required locations designed by a qualified fire protection engineer. Standpipe system must comply with the requirements of NFPA 14.	
Suggested Deadline Date:	16 Oct 2014	
Standard:	Does the building have a standpipe system installed where required. Alliance Standard Part 5 Section 5.4.2	
Question:	Does the building have a fire pump?	

Priority Level:	High	
Non-Compliance Level:	3	
Description:	1 no Fire pump (45 KW). 1 no Jockey Pump (25 KW) found. Standby pump not found.	
Source of Findings:	Visual Assessment: 1 no Fire pump (45 KW). 1 no Jockey Pump (25 KW) found. Standby pump not found.	
Suggested Plan of Action:	Install a dedicated fire pump for the facility in accordance with NFPA 20. Also, to supply the demands of the connected fire protection systems along with a stored source of water sufficient to meet the demands in accordance with NFPA 22. Fire pump installation is to be tested for final acceptance in presence of Alliance and a final inspection of the installation shall be conducted by the Alliance prior to final acceptance of the installation by the Alliance as per clause 5.5.5. Acceptance testing of the installation shall be in accordance with NFPA 20, 22, and 25 testing requirements. Documentation of all testing shall be submitted to the Alliance for review prior to final acceptance by the Alliance.	
Suggested Deadline Date:	16 Oct 2014	
Standard:	Alliance Standard Part 5 Fire Protection Systems	
Question:	Trouble or alarm notifications were not indicated on the fire alarm control panel.	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Trouble or alarm notifications not indicated on the fire alarm control panel	
Source of Findings:	Visual Assessment: As seen on site	
Suggested Plan of Action:	Install a new automatic fire detection alarm system throughout the factory in accordance with NFPA 72; including means of system trouble or alarm notification.	
Suggested Deadline Date:	16 Aug 2014	
Standard:	Alliance Standard Part 13 Section 13.10 Maintenance of Fire Protection Equipment	
Question:	Are notification and initiation devices for the fire alarm system installed at required locations based on occupancy type?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Found Manual type Fire Alarm system with emergency power supply.	
Source of Findings:	Photograph: Found Manual type Fire Alarm system with emergency power supply.	
Suggested Plan of Action:	Install initiating devices and notification appliances as required by the Alliance Standard and NFPA 72. Devices should be part of an automatic fire alarm and	

	detection system for the facility. All fire alarm installations shall be submitted for review by the Alliance prior to commencement of installation	
Suggested Deadline Date:	16 Oct 2014	
Standard:	Pull stations at egress points, smoke detectors in air handling equipment, visual and audible devices spaced appropriately based on occupancy type. Reference NFPA 72	
Question:	Are fire department connections provided and clearly identified for the Fire Protection Systems?	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	Siamese connection was not found.	
Source of Findings:	Visual Assessment: There was no Siamese connection Present on site.	
Suggested Plan of Action:	Provide Fire Department (Siamese) connections in accordance with Alliance Standard Section 5.5.4. Connections shall match the Fire Service and Civil Defence hose thread standard.	
Suggested Deadline Date:	16 Jan 2015	
Standard:	Alliance Standard Part 5 Section 5.5.4 Fire Department Connections	
Question:	Is the fire alarm and detection system monitored by a central station monitoring service or directly connected to the Fire Service and Civil Defense?	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	Found 33 nos. fire alarm with battery backup emergency power supply those are not monitored by a central station monitoring service or directly connected to fire service or civil defense.	
Source of Findings:	Visual Assessment: Found 33 nos. fire alarm with battery backup emergency power supply those are not monitored by a central station monitoring service or directly connected to fire service or civil defense.	
Suggested Plan of Action:	It should be monitored by central station monitoring service or directly connected to fire service & civil defense.	
Suggested Deadline Date:	16 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:	2	

Description:	Records were not found for ITM of standpipe system.
Source of Findings:	Visual Assessment: Records were not present on site.
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.
Suggested Deadline Date:	16 Jan 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:	2
Description:	No signage was found for current standpipe system.
Source of Findings:	Visual Assessment: There were no signs present on site.
Suggested Plan of Action:	Install signage at required locations and on required equipment. Signage must comply with NFPA 14.
Suggested Deadline Date:	29 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:	Document for fire pump ITM was not provide.
Source of Findings:	Visual Assessment: Records were not present on site.
Suggested Plan of Action:	Establish an inspection, testing, and maintenance program for the fire pump. Program must comply with NFPA 25.
Suggested Deadline Date:	15 Jan 2015
Standard:	Reference NFPA 25 Chapter 8 Fire Pumps

Means of Egress

Question:	All doors in a means of egress are of the side-hinged swinging type.
Priority Level:	High
Non-Compliance Level:	3
Description:	Collapsible gate & Sliding doors are found in the means of egress which are kept open for working time.

Source of Findings:	Photograph: Collapsible gate & Sliding doors are found in the means of egress which are kept open for working time.	
Suggested Plan of Action:	Replace with side-hinged swinging type door. Position the door so it shall open in the direction of egress without obstructing other paths of egress.	
Suggested Deadline Date:	16 Oct 2014	
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
Question:	Doors are not locked in the direction of egress under any conditions. All hasps, locks, slide bolts, and other locking devices have been removed where required.	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	Found doors are open in the working hour. The doors have locking provision.	
Source of Findings:	Visual Assessment: The doors have locking provision.	
Suggested Plan of Action:	Remove all hasps, locks, slide bolts, or other locking devices at the locations where needed.	
Suggested Deadline Date:	15 Jan 2015	
Standard:	Alliance Standards Part 6 Section 6.8 Doors and Gates	
Question:	Exterior exit stairs are separated from the building with the required rating. The rating of the exterior wall shall extend 3.05 m (10 ft) beyond the ends of the stair structure.	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	Found 01 no. exterior exit stair having gap 12 inch from the 2 storied (partial 4-storied) building. Windows and other openings were found within 10 ft of the ends of the stair structure	
Source of Findings:	Photograph: Windows and other openings were found within 10 ft of the ends of the stair structure.	
Suggested Plan of Action:	Provide required fire rated construction 10 ft beyond the ends of the exterior stairs. Enclose any openings (windows, etc.) with required fire rated construction within that 10 ft wall section. The rated assembly should be approved and/or designed by a qualified fire protection engineer	
Suggested Deadline Date:	16 Oct 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:	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:	1	
Description:	At Building-1: 03 nos. Collapsible main gate of width 72 inch, Building-2: 01 no. Sliding door of width 42 inch Shed (2-storied): 01 no. Sliding doors of width 42 inch. and Shed: 02 nos. Sliding doors of width 120 inch found. No Door has required ratings.	
Source of Findings:	Visual Assessment: No Door has required ratings.	
Suggested Plan of Action:	Replaced all non- compliant doors and frames in the egress with side-swinging doors. Replacement doors shall be listed, approved, self –closing, fire rated door assemblies (door and frame) with latching panic hardware.	
Suggested Deadline Date:	15 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:	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 found on one side of 1 stair at building-1. Handrails are not provided on any side of each stairs (2 nos.) at building-1. Handrails are provided on one side of stairs (2 nos.) at building-2.Handrails are provided on one side of stairs (2 nos.) at shed (2-storied).	
Source of Findings:	Visual Assessment: Handrails are not provided on any side of each stairs (2 nos.) at building-1.	
Suggested Plan of Action:	Install an additional handrail to each stairway where only one is currently installed as per the height and distance requirements set out in the standard.	
Suggested Deadline Date:	16 Jan 2015	
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 were not posted for any assembly or the production floor in a conspicuous space, near the main point of egress.	
Source of Findings:	Visual Assessment: Occupant loads are not posted.	
Suggested Plan of Action:	Occupant load signage should be posted for every assembly and production floor, at a conspicuous space near the main exit or exit access doorway for the space.	

Suggested Deadline Date:	16 Aug 2014
Standard:	Alliance Standards Part 6 Section 6.4.4 Posting of Occupant Load
Question:	Exits are limited to Class A and Class B interior materials.
Priority Level:	Medium
Non-Compliance Level:	
Description:	Interior walls are painted with non-combustible paints at the means of egress.
Source of Findings:	Visual Assessment: As seen on site
Suggested Plan of Action:	N/A
Suggested Deadline Date:	
Standard:	Alliance Standard Part 6 Section 6.3.2 Interior Finish
Fire Safety Programs	
Question:	Training programs are implemented and documented in accordance with the Alliance Safety Training Curriculum.
Priority Level:	Medium
Non-Compliance Level:	2
Description:	The factory has not received the Alliance Safety Training Curriculum at the time of the assessment and has not conducted safety training curriculum per Alliance Standards Part 13.
Source of Findings:	Visual Assessment: Document not found
Suggested Plan of Action:	Training programs need to be implemented and documented in accordance with the Alliance Safety Training Curriculum.
Suggested Deadline Date:	16 Aug 2014
Standard:	Alliance Standards Part 13
Question:	A written housekeeping policy is established and enforced.
Priority Level:	Low
Non-Compliance Level:	3
Description:	A written housekeeping policy was not established or enforced.
Source of Findings:	Visual Assessment: Housekeeping record not found
Suggested Plan of Action:	Produce, establish and enforce a written policy and procedure for housekeeping to ensure scheduled cleaning of all floors, walls, ceilings, air ventilation systems and other building components. Ensure the timely removal of defective, waste and rubbish materials is included. 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:	16 Apr 2015	
Standard:	Alliance Standards Part 13 Section 13.6 Housekeeping	