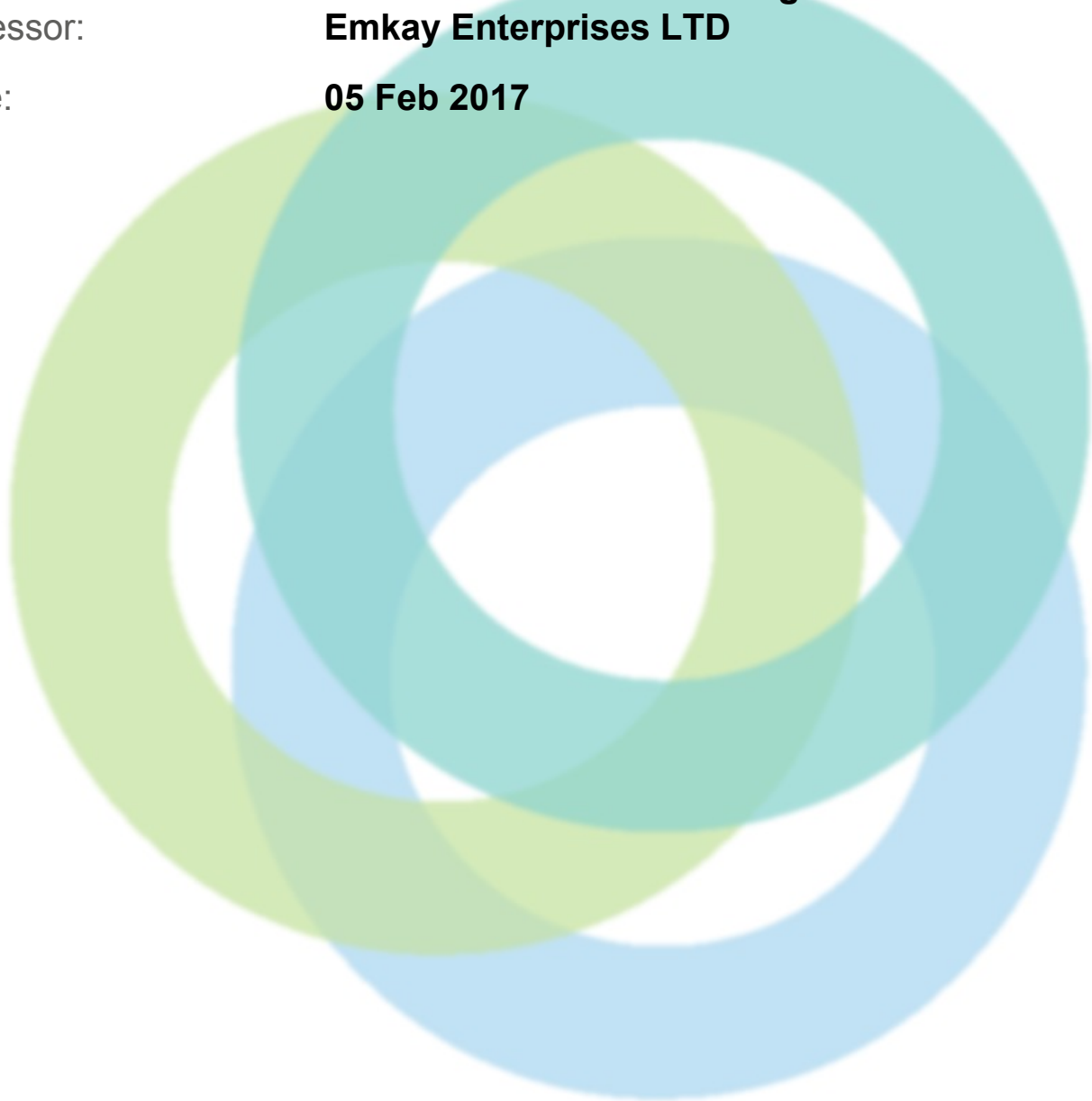


INITIAL ELECTRICAL ASSESSMENT REPORT (EAR)

Factory Name: **Alpha Clothing Ltd. (New Location)**
Address: **TENGURI, BKSP, ASHULIA, SAVAR, DHAKA,
BANGLADESH Dhaka Bangladesh**
Assessor: **Emkay Enterprises LTD**
Date: **05 Feb 2017**





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.



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ALLIANCE
 FOR BANGLADESH WORKER SAFETY

GENERAL INFORMATION

General Information	
Factory Name:	Alpha Clothing Ltd. (New Location)
Address:	TENGURI, BKSP, ASHULIA, SAVAR, DHAKA, BANGLADESH Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	
Zip Code:	
Audit Duration:	1 Days 0 Hours
Re-Audit:	Re-Audit After 0 Months
Draft Report Date :	11 February 2017
Final Report Date :	28 February 2017
Are all action items from previous assessment complete? :	N/A
Buildings in Complex :	There are 05 buildings (01 main buildings and 04 ancillary buildings)
Is the building(s) owned or rented by the Factory?:	Owned
Number of Building Levels (Stories) :	Main building: Six stories (G+5). 3rd, 4th & 5th floor is under construction.
Approximate Building Area (SF) :	Total: 45,000.00 SF. [Main Building: G.F: 15,000.00, 1st: 15,000.00, 2nd: 15,000.00)
Date of Building Construction :	2014-17
Date of Last Building Renovation/Addition :	Building construction in process.
Ancillary Structures in Complex :	There are four (04) ancillary structures.
Approximate Ancillary Structures Area (SF) :	Total: 6,600.00 SF. [01) Dining & Office: 3,200.00, 02) Security room: 300.00, 03) Child care & Medical: 1,975.00, 04) Utility building: 1,125.00)
Number of Occupants :	Total Occupant: 321. [01) Main Building: G.F: 25, 1st: 25, 2nd: 250, 02) Dining & Office Shed: 05, 03) Security

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	room: 04, 04) Child care & Medical Shed: 10, 05) Utility building: 02]
Provide brief description of the electrical system for each building.:	1000 KVA Transformer, 500 KVA diesel Generator, 600 KVAR PFI panel and 25 Nos electrical distribution panel.
Physical location of Substation? :	Separate building next to the main building.
What equipment/loads does the UPS serve? :	Emergency lights, and fire alarm.



ASSESSMENT FINDINGS

Electrical System Information

Question:	Are as-built electrical drawings indicating information such as panel and circuit locations throughout the building(s) available for review?
Priority Level:	High
Non-Compliance Level:	3
Description:	As-built Single Line Diagram and Electrical Layout Diagram was available for review but was not updated with information needing to be added in the SLD, ELD (e.g. connected load, circuit breaker rating, input cable information).
Source of Findings:	Document Review: Documentation available but not updated.
Suggested Plan of Action:	Have a qualified electrical engineer update the as-built single line diagram, Electrical layout diagram, earthing diagram detailing key components, and capacity of the electrical system.
Suggested Deadline Date:	05 Mar 2016
Standard:	Alliance Standard Part 10 Section 10.3.7

Electrical System Maintenance

Question:	Are periodic safety inspections of the electrical system components completed and documented?
Priority Level:	Medium
Non-Compliance Level:	3
Description:	Documents concerning periodic safety inspection were provided but sufficient information was not present in the documentation.
Source of Findings:	Document Review: Documents need modification.
Suggested Plan of Action:	Develop a periodic inspection program to ensure the electrical systems are free from damage, debris, dirt, lint, etc. Maintain records concerning inspections and follow up actions.
Suggested Deadline Date:	18 Mar 2017
Standard:	Alliance Standard Part 10 Section 10.13 Inspection and Testing and Part 13 Section 13.6 Housekeeping

Electrical System Conditions



Question:	Are all switchboards and/or distribution boards metal enclosed with a dead front construction?
Priority Level:	High
Non-Compliance Level:	3
Description:	Dead front construction is not provided in the electrical panels.
Source of Findings:	Photograph: DB-SS E/F, Feed From: LT Panel & All electrical panels in the facility.
Suggested Plan of Action:	Replace the existing panel covers with dead front construction for using sheet steel with a minimum thickness of 20 SWG.
Suggested Deadline Date:	05 Mar 2017
Standard:	Alliance Standards Part 10 Section 10.7 Main Switch, Switchboards and Metal Clad Switchgear
Question:	Light fixtures without protective covers are not installed in storage areas or in any area where the Inspector of the Factories Rules (1.5.3.5) Part 53 disallows these fixtures.
Priority Level:	High
Non-Compliance Level:	3
Description:	Light fixtures without protective covers were found inside the ground floor.
Source of Findings:	Photograph: Ground Floor
Suggested Plan of Action:	Provide protective covers for every naked light installed in areas that are used for storage area.
Suggested Deadline Date:	05 Mar 2017
Standard:	Alliance Standards Part 10 Section 10.15 Naked Lights
Question:	No multi looping of wiring/cables observed at circuit breakers within switchboards and/or distribution boards.
Priority Level:	High
Non-Compliance Level:	1
Description:	Multi looping of cables were found inside DB-REB, Substation Room
Source of Findings:	Photograph: DB-REB, Substation Room.
Suggested Plan of Action:	Refeed wiring to eliminate multi looping.
Suggested Deadline	18 Mar 2017





Date:	
Standard:	Alliance Standard Part 10 Section 10.3 Electrical Wiring and Cabling
Question:	Do switchboards and/or distribution boards have clear identification markings?
Priority Level:	Medium
Non-Compliance Level:	3
Description:	No Permanent (Marker-pen used) identification found in front of distribution boards.
Source of Findings:	Photograph: DB: SDB-02 G.F FF: MDB Ground Floor
Suggested Plan of Action:	Provide an identification marking indelibly written on a durable material sheet on the panels door.
Suggested Deadline Date:	18 Mar 2017
Standard:	Alliance Standard Part 10 Section 10.7 BNBC Part 8 Section 2.11.5.4
Question:	Are electrical wiring/cables properly identified?
Priority Level:	Medium
Non-Compliance Level:	2
Description:	None of the cables have been provided with identification. Also color code has not been maintained in some panels. For example, DB-REB in the Substation Room has cables without identification and proper color coding.
Source of Findings:	Photograph: DB-REB, Substation Room
Suggested Plan of Action:	Provide identification/tagging mentioning the equipment/machines' name (i.e. Sewing machine line-1 or Lighting line-2) and type of conductor (i.e. L1,L2,L3,N,PE) for every cable at its termination point or maintain the color-code at its termination point (providing colored cable-sleeves) for identification of conductor-type (i.e. Red/Yellow/blue for phase cable, Black for neutral cable, Green for earthing cable).(Labeling-cable-tie/Marker-tie can be used for cable identification).
Suggested Deadline Date:	18 Mar 2017
Standard:	Bangladesh Electricity Rules 1937 Rule 51 and 56
Question:	The substation room has adequate illumination levels.
Priority Level:	Medium
Non-Compliance Level:	1
Description:	Sufficient illumination was not observed around the panels during the assessment.





Source of Findings:	Photograph: Substation Room	
Suggested Plan of Action:	Provide additional light fixtures to increase illumination levels to those required in the BNBC.	
Suggested Deadline Date:	18 Mar 2017	
Standard:	Alliance Standard Part 10 Section 10.13.7.1 Inspection of Substation Installations.	
Question:	Are all internal components of switchboards and/or distribution boards properly concealed (No missing circuit breaker or knockout covers)?	
Priority Level:	Medium	
Non-Compliance Level:	1	
Description:	Cable entry holes were found in the DB-REB.	
Source of Findings:	Photograph: DB-REB, Substation Room	
Suggested Plan of Action:	Provide covers or blanks to conceal all live internal components of switchboards and/or distribution boards.	
Suggested Deadline Date:	18 Mar 2017	
Standard:	Alliance Standard Part 10 Section 10.3.9 Sub-Distribution Boards	
Question:	Is all electrical wiring/cable properly terminated at its point of termination (No un-terminated wires, lugs are provided at terminals, etc)?	
Priority Level:	Medium	
Non-Compliance Level:	1	
Description:	Cables without cable sockets were found inside the DB.	
Source of Findings:	Photograph: DB-REB , Substation Room	
Suggested Plan of Action:	Terminate cables/conductors using cable sockets of appropriate size. Use appropriate crimping tool or lug puncher(hydraulic preferably) for punching the lugs/cable sockets.	
Suggested Deadline Date:	30 Mar 2017	
Standard:	Alliance Standards Part 10 Section 10.3.9.2 Wiring of Sub-distribution Boards	



Question:	Signage indicating the prohibition of light fixtures without protective covers is installed at required locations.
Priority Level:	Low
Non-Compliance Level:	3
Description:	Signage indicating prohibition of light fixtures not found.
Source of Findings:	Photograph: Ground Floor.
Suggested Plan of Action:	Light fixtures without protective covers (otherwise known as naked lights) shall not be allowed in storage areas or in any area where the Inspector of the Factories Rules (1.6.3.7) Part 53 disallows these fixtures. Install signs posted in Bengali and English, indicating this prohibition at all entrances to these areas.
Suggested Deadline Date:	05 Mar 2017
Standard:	Alliance Standards Part 10 Section 10.15 Naked Lights
Question:	Phase separators are provided between terminals on circuit breakers.
Priority Level:	Low
Non-Compliance Level:	1
Description:	MCCBs without phase separators were found inside LT panel.
Source of Findings:	Photograph: LT Panel, Substation Room.
Suggested Plan of Action:	Install phase separators between terminal connections. Verify phase separators are installed at all remaining locations.
Suggested Deadline Date:	18 Mar 2017
Standard:	Alliance Standard Part 10 Section 10.3.1 Electrical Connections



Emergency Power System

Question:	Is the generator room properly illuminated?
Priority Level:	Medium
Non-Compliance Level:	1
Description:	Sufficient illumination was not observed around the generator room during the assessment.
Source of Findings:	Photograph: Generator Room
Suggested Plan of Action:	Provide additional light fixtures to increase illumination levels to those required in the BNBC.





Suggested Deadline Date:	18 Mar 2017
Standard:	Alliance Standards Part 10 Section 10.8.4 Generator Room
Question:	Are inspection, maintenance, and testing procedures of the UPS being completed and documented?
Priority Level:	Low
Non-Compliance Level:	3
Description:	Records regarding inspection, maintenance or testing of UPS were not provided.
Source of Findings:	Document Review: Documentation not found.
Suggested Plan of Action:	Establish an inspection testing, and maintenance program for the Uninterruptable Power Supply (UPS) and associated components. The program must based on the following: (1) Manufacturer's recommendations (2) Manufacturer's instruction manuals (3) Minimum Requirements of NFPA 111 Chapter 8 (4) Minimum Requirements of NFPA 70B Chapter 28
Suggested Deadline Date:	30 Mar 2017
Standard:	Alliance Standard Part 13 Section 13.11 NFPA 111 Chapter 8 NFPA 70B Chapter 28
Question:	Are inspection, maintenance, and testing procedures of the emergency generator being completed and documented?
Priority Level:	Low
Non-Compliance Level:	1
Description:	Generator inspection, maintenance and testing documents were not provided.
Source of Findings:	Document Review: Documentation not available
Suggested Plan of Action:	Establish a routine maintenance and testing program for the emergency generator. The program shall be based on all of the following: (1) Manufacturer's recommendations (2) Manufacturer's Instruction manuals (3) Requirements of NFPA 110 Chapter 8
Suggested Deadline Date:	30 Mar 2017
Standard:	NFPA 110 Chapter 8

Lightning Protection System

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Assessor: **Emkay Enterprises LTD**
 Date: **05 Feb 2017**



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Question:	Is a lightning protection system installed on the building?
Priority Level:	High
Non-Compliance Level:	3
Description:	Lightning Protection System design is completed but installation has not started due to building under construction.
Source of Findings:	Photograph: Top of the building
Suggested Plan of Action:	Lightning Protection System must be installed as soon as possible per the design.
Suggested Deadline Date:	05 Mar 2017
Standard:	Alliance Standards Part 10 Section 10.11 Lightning Protection. Calculate Risk Index to determine if required.

