

INITIAL ELECTRICAL ASSESSMENT REPORT (EAR)

Factory Name: **GREEN TEXTILE LIMITED (BANGLADESH)**

Address: **Nijuri Bazar, Baraid 2, Madurai, Bhaluka Mymensingh
Mymensingh Dhaka Bangladesh**

Assessor: **Sumerra**

Date: **12 Jun 2014**



Introduction to the Report

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

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

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





GENERAL INFORMATION

General Information	
Factory Name:	GREEN TEXTILE LIMITED (BANGLADESH)
Address:	Nijuri Bazar, Baraid 2, Madurai, Bhaluka Mymensingh Mymensingh Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Mymensingh
Zip Code:	
Audit Duration:	2 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date :	17-Jul-14
Final Report Date :	17-Jul-14
Are all action items from previous assessment complete? :	N/A
Buildings in Complex :	7 Total Buildings - 1 Main Building and 6 ancillary buildings.
Is the building(s) owned or rented by the Factory?:	Owned
Number of Building Levels (Stories) :	1 (plus mezzanine)
Approximate Building Area (SF) :	110000 sft.
Date of Building Construction :	2013
Date of Last Building Renovation/Addition :	NA
Ancillary Structures in Complex :	6 Total: 1. Utility (Generator +Boiler+Compressor+Substation) building 2. Day care centre 3. Workers dining + prayer centre 4. Medical centre 5. Security post 6. Recruitment office building
Approximate Ancillary Structures Area (SF) :	Total ancillary building area 16,382 sft 1) Utility (Generator +Boiler+Compressor+Substation) building = 6410 sft 2) Day care centre = 1200 sft 3) Workers dining + prayer centre = 5972 sft 4) Medical centre = 1900 sft 5) Security post = 86 sft 6) Recruitment office building = 814 sft

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Number of Occupants :	722 persons
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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:	1
Description:	No as-built electrical drawings were available for review.
Source of Findings:	Document Review: The factory authority could not provide any kind of electrical layout or drawing
Suggested Plan of Action:	Have a qualified electrical engineer develop an as-built single line diagram detailing key components and capacity of the electrical system, including electrical equipment layout, distribution schedule, and grounding layout plan.
Suggested Deadline Date:	05 Dec 2014
Standard:	Alliance Standard Part 10 Section 10.3.7

Electrical System Maintenance

Question:	Have workers that operate and maintain the electrical system received electrical safety training? Is training documentation on site?
Priority Level:	High
Non-Compliance Level:	3
Description:	Workers have received electrical safety training. But they can not provide training documentation at factory site.
Source of Findings:	Document Review: No Documents are available.
Suggested Plan of Action:	Develop and implement an electrical safety program. Include key topics such as lock out tag out procedures, personal protective equipment requirements.
Suggested Deadline Date:	05 Dec 2014
Standard:	Reference NFPA 70e for example
Question:	Is a periodical Insulation Resistance Measurement Program established and recorded?
Priority Level:	Medium
Non-Compliance Level:	3



Description:	No documentation of Insulation Resistance Measurement Program was observed.
Source of Findings:	Document Review: No document of inspection was provided.
Suggested Plan of Action:	Develop an Insulation Resistance Measurement Program that ensures deterioration of insulation resistance will be identified quickly. Testing should be in compliance with InterNational Electrical Testing Association (NETA). All transformers, switchgears etc. shall be subject to an insulation resistance measurement test to ground after installation but before any wiring is connected. Insulation tests shall be made between open contacts of circuit breakers, switches etc. and between each phase and earth.
Suggested Deadline Date:	05 Dec 2014
Standard:	Alliance Standard Part 10 Section 10.13.4 Insulation Tests and 10.13.8 Electrical Inspections

Electrical System Conditions

Question:	Is electrical wiring/cables sized according to capacity of circuit breakers (No higher rated circuit breakers with lower rated wiring)?
Priority Level:	High
Non-Compliance Level:	3
Description:	Electrical cables are not sized according to capacity of circuit breakers. Observed higher rated circuit breaker and lower rated cable in sewing floor DB panel
Source of Findings:	Photograph: Photo of circuit breaker and cable connection (electrical cables are not sized according to capacity of circuit breakers)
Suggested Plan of Action:	Install appropriate circuit breaker according to location. It should not be install with higher rated circuit breaker with lower rated wiring.
Suggested Deadline Date:	05 Dec 2014
Standard:	Alliance Standard Part 10 Section 10.3.1 Electrical Connections.
Question:	No multi looping of wiring/cables observed at circuit breakers within switchboards and/or distribution boards.
Priority Level:	High
Non-Compliance Level:	3
Description:	Multi looping of cables observed at Circuit Breakers at Pump room.
Source of Findings:	Photograph: Photo of multi looping
Suggested Plan of Action:	Remove multi looping of cables at all DBs.





Suggested Deadline Date:	05 Dec 2014	
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:	There was no permanent identification found all MDB, change over panel in the factory.	
Source of Findings:	Photograph: Photo of no permanent identification on all MDB	
Suggested Plan of Action:	All distribution boards shall be permanently marked "Lighting" or "Power", as the case may be, provided a unique ID number (e.g. MDB-1) and also be marked with the voltage and number of phases of the supply.	
Suggested Deadline Date:	05 Dec 2014	
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:	3	
Description:	Electrical cables are not properly identified on all DBs.	
Source of Findings:	Photograph: Photo of electrical wiring/cables are not properly identified on all DB.	
Suggested Plan of Action:	Phase, line, neutral, etc. should be easily identifiable by the use of approved color coding (e.g. Red/ Yellow/ Blue for Phase conductor, Black for Neutral and Green for earthing cable) or cable tags and codes. Where not indicated by color, every cable core of a fixed wiring installation should be identifiable at its terminations and its length by appropriate labels or coding. All cables connecting switch boards and equipment must be identified (cable tags)/panel schedule.	
Suggested Deadline Date:	05 Dec 2014	
Standard:	Bangladesh Electricity Rules 1937 Rule 51 and 56	



Question:	Electrical wiring and conduit is properly supported.
Priority Level:	Medium
Non-Compliance Level:	3
Description:	East site of factory building found cable without adequate support.
Source of Findings:	Photograph: Photo of cable passing through the east side of factory building wall without adequately supported
Suggested Plan of Action:	Cables must be supported on rigid cable trays/ladders or risers and fixed on the wall.
Suggested Deadline Date:	05 Dec 2014
Standard:	Alliance Standard Part 10 Section 10.3.2, 10.3.4.3, and 10.3.5
Question:	Do switchboards and/or distribution boards have capacity information labels?
Priority Level:	Medium
Non-Compliance Level:	2
Description:	Switchboards and/or distribution boards have no capacity information labels.
Source of Findings:	Visual Assessment: No capacity marking on switchboards
Suggested Plan of Action:	Label all switchboards and/or distribution boards in the factory with capacity information. The permanent label should identify the maximum voltage present in an item of equipment or within the enclosure.
Suggested Deadline Date:	05 Dec 2014
Standard:	Alliance Standard Part 10 Section 10.7 Main Switch, Switchboards And Metal Clad Switchgear and 10.13.7 Inspection of the Installation



Emergency Power System

Question:	Are emergency power switchboards, distribution boards, and circuits properly identified?
Priority Level:	High
Non-Compliance Level:	3
Description:	Emergency power switchboards, distribution boards, and circuits are not properly identified
Source of Findings:	Photograph: Emergency power switchboards, distribution boards, and circuits are not properly identified
Suggested Plan of Action:	All boxes and enclosures (including transfer switches, generators, and power panels) for emergency circuits shall be permanently marked so they will be





	readily identified as a component of an emergency circuit or system. The required marking can be by color code, the words "emergency system," or any other method that identifies the box or enclosure as a component of the emergency system.	
Suggested Deadline Date:	05 Dec 2014	
Standard:	NFPA 70 Chapter 7 Article 700.10 Wiring, Emergency System	
Question:	Is the generator frame earthing (grounding) provided at two separate points?	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	Generator frame earthing (grounding) was not provided at two separate points.	
Source of Findings:	Visual Assessment: Generator frame is not properly grounded by two separate points.	
Suggested Plan of Action:	Provide two separate points earthing for generator.	
Suggested Deadline Date:	05 Dec 2014	
Standard:	Alliance Standard 10.8.2.2	
Question:	Are inspection, maintenance, and testing procedures of the emergency generator being completed and documented?	
Priority Level:	Low	
Non-Compliance Level:	3	
Description:	Inspection, maintenance, and testing procedures of the emergency generator was not completed and documented.	
Source of Findings:	Document Review: No inspection documents are available for review.	
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.	
Suggested Deadline Date:	05 Dec 2014	
Standard:	NFPA 110 Chapter 8	
Question:	Are inspection, maintenance, and testing procedures of the UPS being completed and documented?	
Priority Level:	Low	
Non-Compliance Level:	3	

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Description:	No inspection, maintenance, and testing procedures of the UPS being completed and documented.
Source of Findings:	Document Review: No inspection or testing documents available.
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
Suggested Deadline Date:	05 Dec 2014
Standard:	Alliance Standard Part 13 Section 13.11 NFPA 111 Chapter 8 NFPA 70B Chapter 28