

INITIAL ELECTRICAL ASSESSMENT REPORT (EAR)

Factory Name: **CLIFTON COTTON MILLS LIMITED**

Address: **CDA Plot # D28, 28-D/1, 28-D2, Char Rangamatia,
Kalurghat, Chittagong Chittagong Chittagong
Bangladesh**

Assessor: **Sumerra**

Date: **09 Apr 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:	CLIFTON COTTON MILLS LIMITED
Address:	CDA Plot # D28, 28-D/1, 28-D2, Char Rangamatia, Kalurghat, Chittagong Chittagong Chittagong Bangladesh
Country:	Bangladesh
Province:	Chittagong
City:	Chittagong
Zip Code:	
Audit Duration:	2 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date :	May 10,, 2014
Final Report Date :	
Are all action items from previous assessment complete? :	N/A
Buildings in Complex :	Main Building Generator/Substation Bldg.
Is the building(s) owned or rented by the Factory?:	Rented
Number of Building Levels (Stories) :	Main: 6 story Generator: 1 story
Approximate Building Area (SF) :	100,800 sft
Date of Building Construction :	2006
Date of Last Building Renovation/Addition :	NA
Ancillary Structures in Complex :	Generator/Substation Bldg.
Approximate Ancillary Structures Area (SF) :	Unknown
Number of Occupants :	Approx. 1,600

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ASSESSMENT FINDINGS

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:	The management team informed they have been provided electrical safety training to worker but no documented electrical safety training has been provided to the maintenance staff.	
Source of Findings:	Document Review: No documented electrical safety training has been provided to the maintenance staff	
Suggested Plan of Action:	Develop an electrical safety training program for all workers that may be exposed to electrical safety hazards. Training program should be in line with NFPA 70E: STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE or equivalent standard.	
Suggested Deadline Date:	24 Jun 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 Insulation resistance measurement program is established per Alliance Standard Part 10 Section 10.13.4 Insulation Tests and 10.13.8 Electrical Inspections.	
Source of Findings:	Worker Interviews: Management confirms no resistance measurement program is established	
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:	24 Jun 2014	



Standard:	Alliance Standard Part 10 Section 10.13.4 Insulation Tests and 10.13.8 Electrical Inspections	
Question:	Are periodic safety inspections of the electrical system components completed and documented?	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	The in-house engineer reportedly inspected periodically but could not provide documentation.	
Source of Findings:	Worker Interviews: Engineer confirmed that no documentation is kept of periodic inspection.	
Suggested Plan of Action:	Establish a written periodic inspection program to ensure the electrical systems are free from damage, debris, dirt, lint, etc. Maintain records concerning inspections and follow up actions. Records should be available for review.	
Suggested Deadline Date:	24 Jun 2014	
Standard:	Alliance Standard Part 10 Section 10.13 Inspection and Testing and Part 13 Section 13.6 Housekeeping	
Electrical System Conditions		
Question:	The substation room has the required fire rating/protection and is physically separated from the remainder of the building.	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	Transformer and generator were not separated as required per Alliance Standards Part 4 Section 4.5 Separation	
Source of Findings:	Visual Assessment: Transformer and generator were not separated as per visual observation.	
Suggested Plan of Action:	Separate oil filled transformers for by a minimum 2 hour fire resistive rated construction. Retain the services of a qualified fire engineer to properly design and approve enclosure. Penetrations (doors, cables) must also be sealed or have appropriate protective (1.5 hour fire rated door assembly).	
Suggested Deadline Date:	08 Oct 2014	
Standard:	Alliance Standard Part 3 Section 3.4.2.1.4	
Question:	No circuits are drawn for loads without the incorporation of a overcurrent protection device (circuit breaker).	
Priority Level:	High	



Non-Compliance Level:	1
Description:	No ground fault protection / overcurrent protection provided on Generator.
Source of Findings:	Visual Assessment: No ground fault protection / overcurrent protection observed on Generator.
Suggested Plan of Action:	Install overcurrent protection on generator. Generators must be provided with protective relays which, in case of a fault, quickly initiate a disconnection of the machine from the system and, if necessary, initiate a complete shut down of the machine.
Suggested Deadline Date:	24 Jun 2014
Standard:	Alliance Standards Part 10 Section 10.9 Protection of Circuits
Question:	Do switchboards and/or distribution boards have capacity information labels?
Priority Level:	Medium
Non-Compliance Level:	1
Description:	There were no power distribution schedules provided for any equipment or capacity information labels on switchboards and/or distribution boards.
Source of Findings:	Visual Assessment: no power distribution schedules were provided on equipment.
Suggested Plan of Action:	Provide power distribution schedules for all equipment and capacity information labels on switchboards and/or distribution boards.
Suggested Deadline Date:	24 Jun 2014
Standard:	Alliance Standard Part 10 Section 10.7 Main Switch, Switchboards And Metal Clad Switchgear and 10.13.7 Inspection of the Installation
Question:	Electrical wiring and conduit is properly supported.
Priority Level:	Medium
Non-Compliance Level:	1
Description:	No cable trench or other protection was provided for cabling in generator room as required by BNBC.
Source of Findings:	Photograph: Photo of cables on floor with no protection
Suggested Plan of Action:	All cables should be laid in trenches, on proper ladders/trays with appropriate covers, or using suitable support clamps at regular intervals as per BNBC.
Suggested Deadline Date:	24 Jun 2014
Standard:	Alliance Standard Part 10 Section 10.3.2, 10.3.4.3, and 10.3.5





Question:	Are there additional areas of non-compliance to report?	
Priority Level:	Medium	
Non-Compliance Level:	1	
Description:	All DB connection cable from floor to floor were not properly covered/tied/protected as per BNBC. Additionally, floor penetrations were not sealed with fire stop materials.	
Source of Findings:	Photograph: Photo of cabling for DB	
Suggested Plan of Action:	Install proper protection (cover) for wiring in DB area and secure to cable ladder. The openings remaining after passage of the wiring system shall be sealed according to the degree of fire resistance prescribed for the floor before penetration.	
Suggested Deadline Date:	24 Jun 2014	
Standard:	Not Applicable	
Question:	Signage indicating the prohibition of light fixtures without protective covers is installed at required locations.	
Priority Level:	Low	
Non-Compliance Level:	3	
Description:	No signage indicating the prohibition of light fixtures without protective covers installed in storage areas as per Alliance Standards Part 10 Section 10.15 Naked Lights.	
Source of Findings:	Visual Assessment: No signage observed indicating the prohibition of light fixtures without protective covers	
Suggested Plan of Action:	Install signage in all storage areas or other areas of combustibles indicating no use of light fixtures without protective covers as per Alliance Standard 10.15.2. Signs should conform to ANSI Z535 or equivalent international standard regarding safety signs.	
Suggested Deadline Date:	27 May 2014	
Standard:	Alliance Standards Part 10 Section 10.15 Naked Lights	
Question:	An instruction board for first aid and artificial respiration is located in the generator room and substation room.	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	There was instruction board for first aid and artificial respiration in the substation room but not the generator room.	



Source of Findings:	Visual Assessment: Did not observe instruction board for first aid in the generator room	
Suggested Plan of Action:	Install a sign in the generator room that provides details on electrical shock first aid procedures. Signage should also include instructions on artificial respiration.	
Suggested Deadline Date:	27 May 2014	
Standard:	A sign detailing electrical shock first aid procedures should be installed in these rooms.	
Question:	Are meters and other electrical devices (Ammeter, Voltmeter, PFI Auto Controller, etc) installed on the main electrical equipment operational?	
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	HT switchgear indication light not working.	
Source of Findings:	Photograph: Photo of HT switchgear	
Suggested Plan of Action:	Repair switchgear indication light	
Suggested Deadline Date:	27 May 2014	
Standard:	Alliance Standard 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 identified as part of the emergency power system.	
Source of Findings:	Visual Assessment: No labels were observed on emergency power switchboards, distribution boards, and circuits identifying them as part of the emergency power system.	
Suggested Plan of Action:	All boxes and enclosures (including transfer switches, generators, and power panels) for emergency circuits should be permanently marked with signs that readily identify them as a component of the emergency power system.	
Suggested Deadline Date:	27 May 2014	
Standard:	NFPA 70 Chapter 7 Article 700.10 Wiring, Emergency System	

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