

INITIAL STRUCTURAL INTEGRITY ASSESSMENT REPORT (SIAR)

Factory Name: **Coast To Coast (Pvt) Ltd**

Address: **1st, 2nd, 7th Floor, Itahata, Union: Bashon, Mouza 35
(Chandana) Gazipur Sadar Gazipur Dhaka
Bangladesh**

Assessor: **Sumerra**

Date: **27 Feb 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:	Coast To Coast (Pvt) Ltd
Address:	1st, 2nd, 7th Floor, Itahata, Union: Bashon, Mouza 35 (Chandana) Gazipur Sadar Gazipur Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Gazipur
Zip Code:	1702
Audit Duration:	
Re-Audit:	Re-Audit After 0 Months
Draft Report Date :	March 29th, 2014
Final Report Date :	August 26, 2014
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex :	Main Building Ancillary Utilities Building (Generator) Child Care Building
Number of Building Levels (Stories) :	Main 9 (+Basement) Ancillary - 2 Child Care - 1
Approximate Building Area (SF) :	2645 SF per floor (26450 SF)
Date of Building Construction :	Construction started in February 2006 & completed in December 2009
Date of Last Building Renovation/Addition :	NA
Is the Building mixed use?:	No
Ancillary Structures in Complex :	Ancillary Utilities Building (Generator) Child Care Building
Number of Ancillary Levels (Stories) :	Ancillary Utilities Building (Generator) -2 Child Care Building -1
Approximate Ancillary	Unknown

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Structures Area (SF) :	
Number of Occupants :	Less than 600 per floor
Exterior Facade Description :	Exterior is mainly brick wall and is in good condition. No distress is observed
Structural System Description :	RCC building with steel in concrete. Beam-column frame structure. Monolithic RC slab with beams.



ASSESSMENT FINDINGS

Structural System Design

Question:	Are the available FoS for the columns adequate based on Preliminary calculation?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	42psf Central 1.87 Corner 1.81 Edge 1.88 20psf Central 2.09 Corner 1.93 Edge 2.04	
Source of Findings:	Document Review: Uploaded Document & FoS calculation spreadsheet, Uploaded Document: Stress Calculation	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Provide results of preliminary calculations in space provided. a) column capacity; FoS > 1.86 - Safe b) column capacity; FoS 1.5 -1.86 - Needs Evaluation c) Column capacity; FoS 1.25-1.5 - Needs Evaluation d) Column capacity; FoS <1.25 - Unsafe In case of a critically low FoS (<1.25), consider Immediate Escalation Protocol	
Question:	If built after 2006, can documented compliance with the seismic and wind requirements of the 2006 BNBC be provided?	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	In structural design and occupancy certificate, it is mentioned that design has considered dead load, live load, basic wind load, and seismic zone factor as per BNBC(1993/2006). But numerical value of wind load are seismic loads are not available as per Alliance Standards Part 8 Section 8.17 Design for Lateral Loads and 2006 BNBC Part 6 Section 1.5	
Source of Findings:	Document Review: Review of design documents and occupancy certificate	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 8 Section 8.17 Design for Lateral Loads and 2006 BNBC Part 6 Section 1.5	



Question:	Can documentation be provided that the building is compliant with the requirements for wind loading and storm surge loadings as detailed in BNBC Part 6 Section 1.5.3?
Priority Level:	Medium
Non-Compliance Level:	3
Description:	In structural design and occupancy certificate, it is mentioned that design has considered dead load, live load, basic wind load, and seismic zone factor as per BNBC(1993). But numerical value of wind load is not available.
Source of Findings:	Document Review: Review of design docs and occupancy cert.
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	2006 BNBC Part 6 Section 1.5. Compliance may be waived if the Factory Owner provides satisfactory evidence of a cyclone operations plan that includes full evacuation of the factory in advance of any approaching cyclone"
Question:	Where density of operations, storage of materials, or equipment weights require live load capacity in excess of 2.0 kN/m2 (42 psf), do the design documents confirm that the required load capacity exists? Or has the load capacity been analytically confirmed and certified by an Alliance-qualified structural engineer?
Priority Level:	Medium
Non-Compliance Level:	2
Description:	Live loads are not provided for storage areas such as basement storage areas or sewing section areas where live loads may exceed 2.0 kN/m2 as per Alliance Standards Part 8 Section 8.15 Minimum Floor Design Loads
Source of Findings:	Document Review: Review of design docs and occupancy cert.
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Alliance Standards Part 8 Section 8.15 Minimum Floor Design Loads

Structural System Construction



Question:	Are all non-structural elements suspended from, attached to, or resting atop the structure adequately anchored and braced to resist earthquake forces?
Priority Level:	Medium
Non-Compliance Level:	2
Description:	The following elements are not braced as per Alliance Standards Part 8 Section 8.18 Seismic Bracing of Key Non-Structural Elements and 2006 BNBC Part 6: - Water tank, Roof Top, West Side - Storage racks, 2nd Floor
Source of Findings:	Photograph: Unbraced storage racks
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Alliance Standards Part 8 Section 8.18 Seismic Bracing of Key Non-Structural Elements and 2006 BNBC Part 6




Structural Safety Programs

Question:	Is a program in place to ensure that the live loads for which a floor or roof is or has been designed will not be exceeded?
Priority Level:	Medium
Non-Compliance Level:	3
Description:	No program is in place to ensure loads will not be exceeded as per BNBC Part 6 Chapter 1 Section 1.4.6 and Alliance Standard Part 13 Section 13.7 and Part 8 Section 8.9.
Source of Findings:	Document Review: Review of documents did not indicate program to ensure loads will not be exceeded.
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Alliance Standard Part 13 Section 13.7 and Part 8 Section 8.9.

Question:	Have Load Plans been prepared for each floor documenting the actual maximum operational loading that is intended and/or allowable on each floor.
Priority Level:	Low
Non-Compliance Level:	3
Description:	No load plans have been prepared as per Alliance Standards Part 8 Structural Design Section 8.10 Floor Loading Plans (Load Plans)



Source of Findings:	Document Review: No load plans available for review.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.10 Floor Loading Plans (Load Plans)	
Question:	Are Floor Load Plans posted as required?	
Priority Level:	Low	
Non-Compliance Level:	3	
Description:	No load plans posted as required per Alliance Standard Part 8 Section 8.20.5.3	
Source of Findings:	Visual Assessment: No load plans visually observed.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.20.5.3	
Question:	Are areas used for storage of work materials and work products, clearly marked to indicate the acceptable loading limits as described in the Load Plan for that floor?	
Priority Level:	Low	
Non-Compliance Level:	3	
Description:	Areas are not marked with acceptable loading limits as per Alliance Standards Part 8 Structural Design Section 8.11 Floor Load Markings	
Source of Findings:	Photograph: Basement storage area	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.11 Floor Load Markings	
Question:	Is a designated representative (Factory Load Manager), who is onsite full time, trained regarding the structural floor capacity, and serves as an ongoing vendor resource and monitor of operational factory floor loadings?	
Priority Level:	Low	

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Non-Compliance Level:	3	
Description:	No load manager has been assigned as per Alliance Standards Part 8 Section 8.9 Factory Load Manager	
Source of Findings:	Worker Interviews: Factory confirms no load manager has been assigned.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 8 Section 8.9 Factory Load Manager	