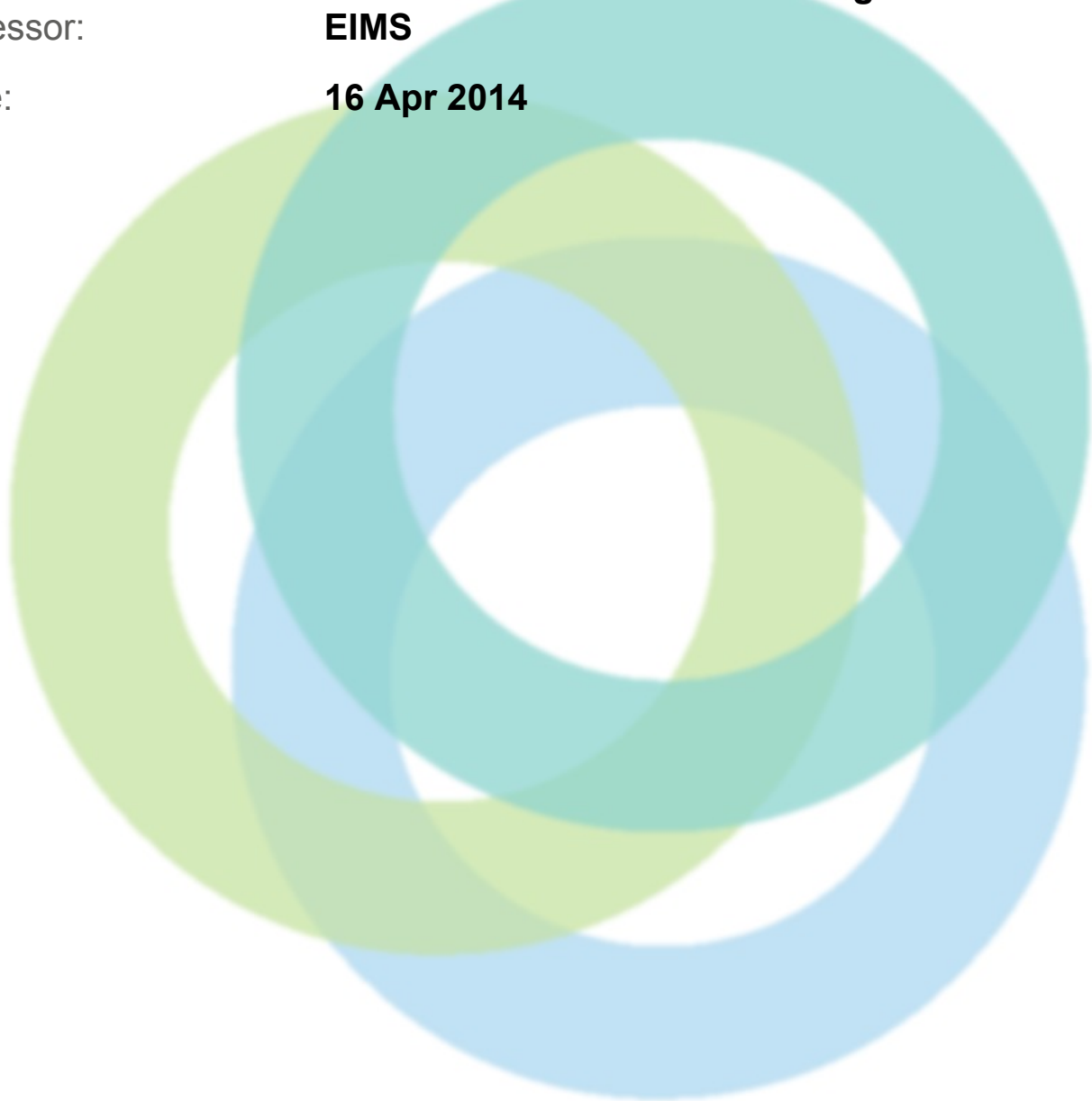


# INITIAL STRUCTURAL INTEGRITY ASSESSMENT REPORT (SIAR)

Factory Name: **Power Vantage Wear Ltd (3rd & 4th Floor)**  
Address: **234/8, Kafrul Tower Kachukhate Road Kafrul, Dhaka  
Cantonment Dhaka Dhaka Bangladesh**  
Assessor: **EIMS**  
Date: **16 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](http://www.bangladeshworkersafety.org).





## GENERAL INFORMATION

General Information	
Factory Name:	Power Vantage Wear Ltd (3rd & 4th Floor)
Address:	234/8, Kafrul Tower Kachukhate Road Kafrul, Dhaka Cantonment Dhaka Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Dhaka
Zip Code:	1206
Audit Duration:	1 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date :	02 May 2014
Final Report Date :	22 May 2014
Are all Action Items From Previous Assessment Completed?:	Yes
Buildings in Complex :	one (01)
Number of Building Levels (Stories) :	six (06) storied
Approximate Building Area (SF) :	52,800 sft
Date of Building Construction :	1998-1999
Date of Last Building Renovation/Addition :	No renovation/ addition
Is the Building mixed use?:	No
Ancillary Structures in Complex :	No Ancillary Structures
Number of Ancillary Levels (Stories) :	Not Applicable
Approximate Ancillary	Not Applicable

Factory Name: **Power Vantage Wear Ltd (3rd & 4th Floor)**  
Address: **234/8, Kafrul Tower Kachukhate Road Kafrul, Dhaka Cantonment Dhaka Dhaka Bangladesh**

Assessor: **EIMS**  
Date: **16 Apr 2014**



**ALLIANCE**  
FOR BANGLADESH WORKER SAFETY

Structures Area (SF) :	
Number of Occupants :	Total number of worker 1350
Exterior Facade Description :	Unreinforced Brick masonry with Glass window (21 windows), open space in front of building
Structural System Description :	Beam-Column Frame System with pile foundation



## ASSESSMENT FINDINGS

### Structural System Design

Question:	Are credible structural design documents available for review and kept on site?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	No detail structural drawing is available. Only one sheet of structural design drawing is available. We have record some dimensions of some columns and beams.	
Source of Findings:	Document Review: Structural Design	
Suggested Plan of Action:	Have a qualified structural engineer prepare credible as-built documents based on the requirements of Part 8 Section 8.19 of the Alliance Standard.	
Suggested Deadline Date:	30 Jun 2014	
Standard:	Alliance Standard Part 8 Section 8.19 Required Structural Documentation for New and Existing Factories	
Question:	Can credible structural documentation indicating general conformance with 2006 BNBC or other comparable applicable international model building code be produced?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	The building was built before 2006. There was no indication of use of any international building code shown in the drawing.	
Source of Findings:	Document Review: Structural Design	
Suggested Plan of Action:	Engage a qualified structural engineer to develop the required documents to confirm the structural integrity of the buildings. Documents must comply with Alliance Standard Part 8 Section 8.19 and 8.20	
Suggested Deadline Date:	30 Jun 2014	
Standard:	Reference Alliance Standards Part 8 Section 8.2 Structural Integrity of Existing Factory Buildings	
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	




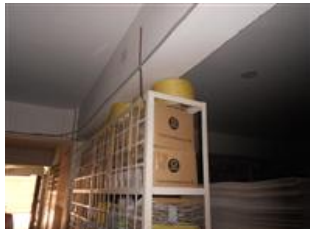
Non-Compliance Level:	1
Description:	The factory owner performed detail assessment by BUET expert. The BUET team performed detail analysis considering the wind load requirement of BNBC, but their report does not explicitly state that the building is adequate under lateral loads.
Source of Findings:	Document Review: Detail Assessment report
Suggested Plan of Action:	Engage a qualified structural engineer to confirm satisfactory structural performance of the buildings under wind loading.
Suggested Deadline Date:	30 Jun 2014
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:	Are Certificates of Occupancy available for review?
Priority Level:	Low
Non-Compliance Level:	2
Description:	Certificates of occupancy is not in "Alliance pre-assessment communication" provided by Alliance to us.
Source of Findings:	Document Review: Alliance pre-assessment communication
Suggested Plan of Action:	Provide Certificates of Occupancy for review.
Suggested Deadline Date:	30 Jun 2014
Standard:	Alliance Standard Part 8 Section 8.3 Preliminary Structural Assessment
Question:	Is a Geotechnical Report available for review and kept on site?
Priority Level:	Low
Non-Compliance Level:	2
Description:	Only one bore log information is available which was done during detail assessment.
Source of Findings:	Document Review: Soil Bore Log
Suggested Plan of Action:	Under guidance from a qualified structural engineer arrange geotechnical investigation at close vicinity of the structure and make the report available for review.
Suggested Deadline Date:	30 Jun 2014





Standard: Alliance Standard Part 8 Section 8.2 Structural Integrity of Existing Factory Buildings

### Structural System Construction

Question:	Are any structural elements constructed with MCAC exposed to rainfall or other sources of water sealed with a protective coating to prevent water intrusion?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Roof exposed to rainfall is not sealed with a protective coating.	
Source of Findings:	Visual Assessment: Photograph of exposed roof	
Suggested Plan of Action:	Roof should be sealed with protective coating under guidance of a qualified engineer.	
Suggested Deadline Date:	30 Jun 2014	
Standard:	Alliance Standards Part 7 Building Materials Section 7.2 Masonry-chip aggregate concrete (MCAC).	
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:	We did not find such element in the typical floors. Some racks found at ground floors which needs to be anchored.	
Source of Findings:	Visual Assessment: Photograph of unbraced rack at ground floor	
Suggested Plan of Action:	Develop engineered plans to brace all non-structural elements to resist earthquake forces to comply with the BNBC and Alliance Standard. Install anchor and braces as shown on approved plans.	
Suggested Deadline Date:	30 Jun 2014	
Standard:	Alliance Standards Part 8 Section 8.18 Seismic Bracing of Key Non-Structural Elements and 2006 BNBC Part 6	



Question:	If the building is currently being renovated or expanded, are the Construction Practices and Safety requirements of Section 9 being followed?
Priority Level:	Medium
Non-Compliance Level:	2
Description:	Some decoration work is currently going on at front facade without any safety measure.
Source of Findings:	Visual Assessment: Photograph of exterior facade
Suggested Plan of Action:	Immediate safety measure should be taken at earliest possible time by factory owner.
Suggested Deadline Date:	30 Jun 2014
Standard:	Alliance Standard Part 9 Construction Practices and Safety.
Question:	Have all areas of needed maintenance, including areas with efflorescence, dampness, standing water on rooftops, and corrosion been addressed.
Priority Level:	Medium
Non-Compliance Level:	1
Description:	We found some water logging and dampness in the roof top near canteen.
Source of Findings:	Visual Assessment: Photograph of Water Logging at Roof top
Suggested Plan of Action:	Under guidance from a qualified structural engineer, address all areas of needed maintenance by correcting the identified issues.
Suggested Deadline Date:	30 Jun 2014
Standard:	Alliance Standard Part 8 Section 8.26 Durability and Maintenance
Question:	Is expansion joint material free from cracking and other forms of deterioration?
Priority Level:	Low
Non-Compliance Level:	1
Description:	We found some cracks in the expansion joint materials.
Source of Findings:	Visual Assessment: Photograph of crack in expansion joint material
Suggested Plan of Action:	Remove deteriorated expansion joint material and provide new approved material at the expansion joint.
Suggested Deadline Date:	30 Jun 2014
Standard:	Alliance Standard Part 8 Section 8.26 Durability and Maintenance






### Structural Safety Programs

Question:	Are floor loads in compliance with posted plans?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	Although the factory have floor load plans but the load plan was not posted accordingly. We have checked the loads in the floors and found it was within the limit.	
Source of Findings:	Document Review: Floor Load Plan	
Suggested Plan of Action:	Floor load plan need to be posted in all floors.	
Suggested Deadline Date:	30 Jun 2014	
Standard:	Alliance Standard Part 8 Section 8.10 Floor Loading Plans (Load Plans).	
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:	2	
Description:	No program was found at time of inspection.	
Source of Findings:	Visual Assessment: Site visit on April 16, 2014	
Suggested Plan of Action:	Develop a program to ensure that all live loads for which a floor or roof has been designed for will not be exceeded. The designated Load Manager shall oversee this program and ensure it is enforced.	
Suggested Deadline Date:	30 Jun 2014	
Standard:	Alliance Standard Part 13 Section 13.7 and Part 8 Section 8.9.	
Question:	Are Floor Load Plans posted as required?	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	The factory have floor load plan but the load plan was not posted accordingly.	
Source of Findings:	Document Review: Floor Load Plan	
Suggested Plan of Action:	Floor load plan need to be posted on every floor.	



Suggested Deadline Date:	30 Jun 2014	
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:	2	
Description:	We did not find any marking in the floor.	
Source of Findings:	Visual Assessment: photograph of no marking on floor	
Suggested Plan of Action:	Provide signage or the appropriate markings at all areas used for storage to indicate the acceptable loading limits detailed in the Load Plan.	
Suggested Deadline Date:	30 Jun 2014	
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	
Non-Compliance Level:	2	
Description:	No Load Manager is available.	
Source of Findings:	Visual Assessment: Site visit on April 16, 2014	
Suggested Plan of Action:	Designate a representative as the Factory Load Manager. The Factory Owner shall ensure that at least one individual, the Factory Load Manager who is located onsite full time at the factory, is trained in calculating operational load characteristics of the specific factory. The Factory Load Manager shall serve as an ongoing resource to RMG vendors and be responsible to ensure that the factory operational loads do not at any time exceed the factory floor loading limits as described on the Floor Loading Plans.	
Suggested Deadline Date:	30 Jun 2014	
Standard:	Alliance Standards Part 8 Section 8.9 Factory Load Manager	