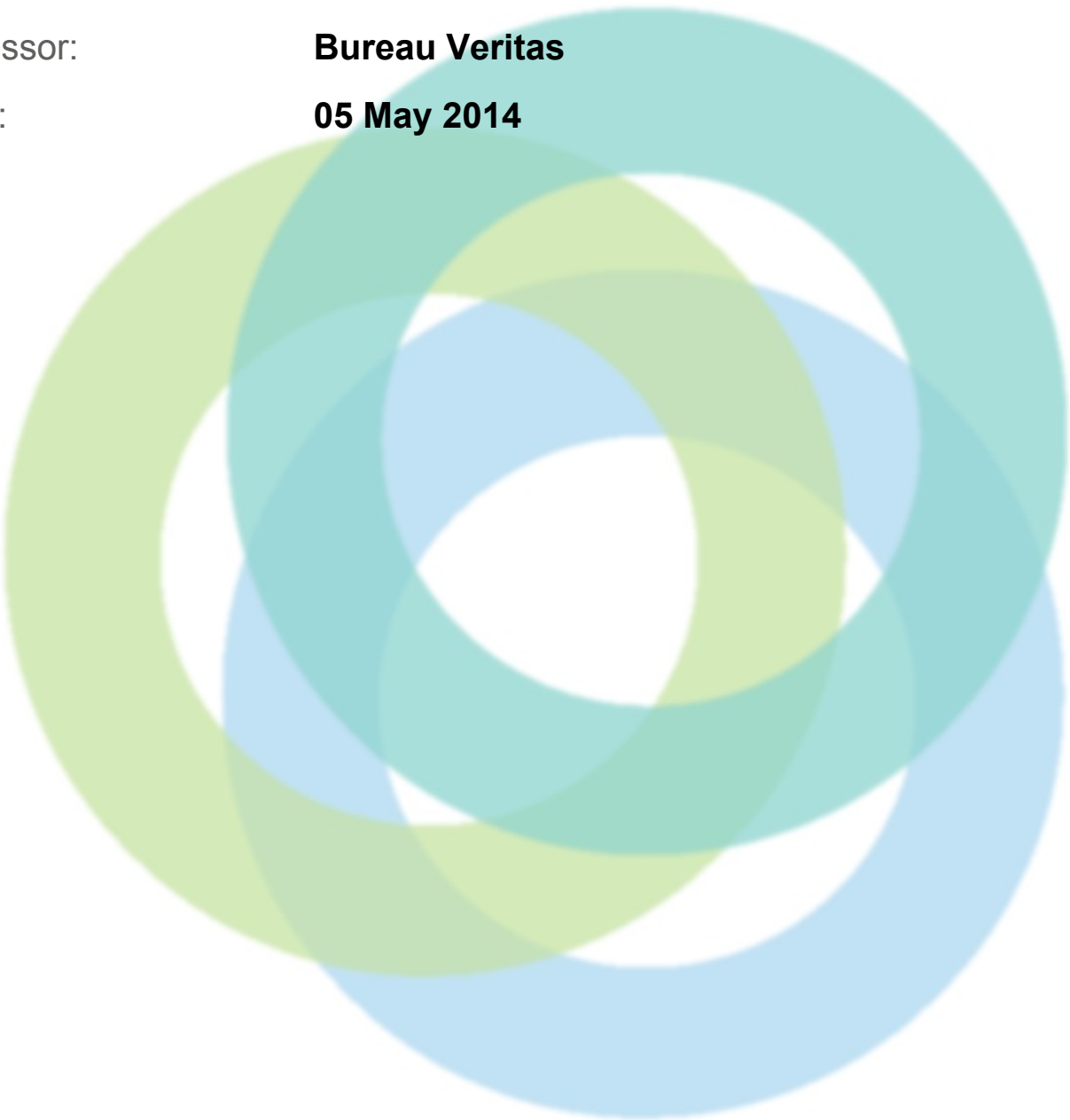


INITIAL STRUCTURAL INTEGRITY ASSESSMENT REPORT (SIAR)

Factory Name: **Jinnat Knitwear Ltd**
Address: **Sadarganj, Kashimpur Gazipur Dhaka Bangladesh**
Assessor: **Bureau Veritas**
Date: **05 May 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:	Jinnat Knitwear Ltd
Address:	Sadarganj, Kashimpur Gazipur Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Gazipur
Zip Code:	1349
Audit Duration:	
Re-Audit:	Re-Audit After 0 Months
Draft Report Date :	06-05-2014
Final Report Date :	10-15-2014
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex :	There are 8 buildings in the factory premises out of which three are main production buildings and five are ancillary buildings. The buildings are named as: 1) Three Story Jinnat Fashions Ltd, 2) Seven Story Jinnat Apparels Ltd & Flamingo Fashions Ltd, 3) Ten Story Jinnat Knitweares Ltd & Matin Knitweares Ltd. with Basement, 4) Two Story Zamil Store, 5) Single Story Generator Room, 6) Four Story Medical, Day care & Office, 7) Single Story Fire command Room, 8) Single story store (Jinnat Apparels Ltd & Flamingo Fashions Ltd).
Number of Building Levels (Stories) :	1) Jinnat Fashions Ltd: (Stories above grade: 3, below grade: 0), 2) Jinnat Apparels Ltd & Flamingo Fashions Ltd: (Stories above grade: 7, below grade: 0), 3) Jinnat Knitweares Ltd & Matin Knitweares Ltd. with Basement: (Stories above grade: 10, below grade: 1), 4) Zamil Store: (Stories above grade: 2, below grade: 0), 5) Generator Room: (Stories above grade: 1, below grade: 0), 6) Medical, Day care & Office: (Stories above grade: 4, below grade: 0), 7) Fire command room: (Stories above grade: 1, below grade: 0), 8) Store (Jinnat Apparels Ltd & Flamingo Fashions Ltd): (Stories above grade: 1, below grade: 0),
Approximate Building Area (SF) :	Total area of buildings in the factory premises: 726200.00 sft. Building wise breakdown as follows: 1) Three Story Jinnat Fashions Ltd: 150000 sft (Ground floor to roof@ 37500 sft), 2) Seven Story Jinnat Apparels Ltd & Flamingo Fashions Ltd: 161300 sft (Ground floor to roof @ 20000 sft, Mezzanine floor: 1300 sft), 3) Ten Story Jinnat Knitweares Ltd & Matin Knitweares Ltd.: 324000 sft (Basement to 9th floor @ 27000 sft), 4) Two Story Zamil Store: 54000 sft (Ground floor: 18000 sft, 1st floor: 18000 sft, roof: 18000 sft), 5) Single Story Generator Room: 3400 sft, 6) Four Story Medical, Day care & Office: 13000 sft (Ground floor to roof@ 2600 sft), 7) Single Story Fire command Room: 500 sft, 8) Single story store (Jinnat Apparels Ltd & Flamingo Fashions Ltd): 20000 sft.
Date of Building	Factory personnel informed the date of buildings construction as follows: 1) Three Story Jinnat Fashions Ltd:



Construction :	Finished in 2006, 2) Seven Story Jinnat Apparels Ltd & Flamingo Fashions Ltd: Finished in 2006, 3) Ten Story Jinnat Knitwears Ltd & Matin Knitwears Ltd. with Basement: Finished in 2007, 4) Two Story Zamil Store: Finished in 2005, 5) Single story store (Jinnat Apparels Ltd & Flamingo Fashions Ltd): Finished in 2005.
Date of Last Building Renovation/Addition :	No record for date of renovation or addition was found from factory personnel.
Is the Building mixed use?:	No
Ancillary Structures in Complex :	1) Two Story Zamil Store, 2) Single Story Generator Room, 3) Four Story Medical, Day care & Office, 4) Single Story Fire command Room, 5) Single story store (Jinnat Apparels Ltd & Flamingo Fashions Ltd).
Number of Ancillary Levels (Stories) :	1) Two Story Zamil Store: Stories above grade: 2, Stories below grade: 0, 2) Single Story Generator Room: Stories above grade: 1, Stories below grade: 0, 3) Four Story Medical, Day care & Office: Stories above grade: 4, Stories below grade: 0, 4) Single Story Fire command Room: Stories above grade: 1, Stories below grade: 0, 5) Single story store (Jinnat Apparels Ltd & Flamingo Fashions Ltd): Stories above grade: 1, Stories below grade: 0,
Approximate Ancillary Structures Area (SF) :	1) Two Story Zamil Store: 54000 sft (Ground floor: 18000 sft, 1st floor: 18000 sft, roof: 18000 sft), 2) Single Story Generator Room: 3400 sft, 3) Four Story Medical, Day care & Office: 13000 sft (Ground floor to roof@ 2600 sft), 4) Single Story Fire command Room: 500 sft, 5) Single story store (Jinnat Apparels Ltd & Flamingo Fashions Ltd): 20000 sft.
Number of Occupants :	Total number of occupants: 8796. 1) Three Story Jinnat Fashions Ltd: 2000 (Ground floor: 200, 1st floor: 850, 2nd floor: 950), 2) Seven Story Jinnat Apparels Ltd & Flamingo Fashions Ltd.: 2908 (Mezzanine Floor: 8, Ground floor: 160, 1st floor: 450, 2nd floor: 460, 3rd floor: 460, 4th floor: 460, 5th floor: 460, 6th floor: 450, Occupied roof: 0), 3) Ten Story Jinnat Knitwears Ltd & Matin Knitwears Ltd. with Basement: 3827 (Basement: 20, Ground floor: 120, 1st floor: 430, 2nd floor: 460, 3rd floor: 450, 4th floor: 450, 5th floor: 450, 6th floor: 450, 7th floor: 410, 8th floor: 400, 9th floor: 230), and see the description.
Exterior Facade Description :	**Jinnat Knitwear Limited & Matins Knitwear Limited: The main building is a RCC moment resisting frame structure with in filled masonry. Windows are sliding type with glass. Main door is metallic swinging type; **Jinnat Fashions Limited: The main building is special system type structure consists of steel structure (Steel Column, Rafter, Purlin) & minor part is flat plate structure with infilled masonry. Windows are single patio type with glass. **Jinnat Apparels Ltd. and Flamingo Fashions Ltd.: The main building is RCC moment resisting frame structure with infilled masonry. Windows are sliding type with glass.
Structural System Description :	**Jinnat Fashions Ltd.: Main portions of the building consists of steel structure (PEB shed and Braced steel shed) & minor part is flate plate system structure with infilled masonry. Foundation type is isolated column footing. **Jinnat Apparels Limited and Flaming Fashions Limited: The main building is a moment resisting frame structure with infilled masonry. Beams-slabs system and the foundation of the building is on isolated column footing. **Jinnat Knitwear Limited & Matin Knitwear Limited: The main building is a RCC moment resisting frame structure with infilled masonry. Beams-slabs system and the foundation of the building is on Mat 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:	**Jinnat Fashions Limited : Structural documents, as-built architectural documents and soil test report are available with proper identity of the responsible engineers. But design report is unavailable. **Jinnat Apparels Limited and Flaming Fashions Limited: As-built structural drawings and architectural drawings, soil test report are available with proper identity of the responsible engineers. But design report is unavailable. **Jinnat Knitwear Limited & Matins Knitwear Limited: Full set of structural drawings and architectural drawings as well as photocopy of soil test report are available with proper identity of the responsible engineer. But design report is unavailable.	
Source of Findings:	Document Review: Available documents review reveals that, design report is unavailable for all of the three factories.	
Suggested Plan of Action:		
Suggested Deadline Date:		
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:	In available design documents of all the main factories, there is no indication about any design code. Design reports are also unavailable. Only a certificate named "Architectural and Structural Design Standard Certificate" is provided separately for all the three factories in the year 2014 stating that, the design of the buildings was done by following BNBC 1993.	
Source of Findings:	Document Review: In available documents of all the three factories, there is no clear indication about any design code. Design reports are also unavailable. Only a certificate named "Architectural and Structural Design Standard Certificate" is provided separately for all the three factories in the year 2014.	
Suggested Plan of Action:		



Suggested Deadline Date:		
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:	2	
Description:	In available design documents of all the three factories, there is no indication about any design code. Design reports are also unavailable. Only a certificate named "Architectural and Structural Design Standard Certificate" is provided separately for all the three factories in the year 2014 stating that, the design of the buildings was done by following BNBC 1993.	
Source of Findings:	Document Review: In available design documents of all the three factories, there is no indication about any design code. Design reports are also unavailable. Only a certificate named "Architectural and Structural Design Standard Certificate" is provided separately for all the three factories in the year 2014 stating that, the design of the buildings was done by following BNBC 1993. Jinnat Fashions Limited: They provide a certificate regarding that the building is compliant with the requirements for wind loading criteria but it satisfy BNBC 1993.	
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:	Have provisions been made in floors or decks for a concentrated load (such as heavy equipment, water tanks, stored materials, etc) applied at a location wherever this load acting upon an otherwise unloaded floor would produce stresses greater than those caused by a uniform load?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	**Jinnat Knitwear Limited & Matin Knitwear Limited: A RCC water tank and a plastic water tank on the roof top having capacity of 186000 Ltr and 3000 Ltr respectively. No provision has been made for plastic water tank, but provisions has been made in design document for RCC water tank. **Jinnat Apparels Limited and Flaming Fashions Limited: There is a plastic water tank on the roof top having capacity of 3000 Ltr. No provision has been made for this water tank. Also, a temporary prayer shed has been constructed at roof top. **Jinnat Fashions Limited: Several flower pots have been found at roof top.	



	The flower pots should be removed for safety.	
Source of Findings:	Visual Assessment: **Jinnat Knitwear Limited & Matin Knitwear Limited: There is a plastic water tank at roof top having capacity of 186000 Ltr. No provision has been made for plastic water tank, but provisions has been made in design document for RCC water tank. **Jinnat Apparels Limited and Flaming Fashions Limited: There is a plastic water tank at roof top having capacity of 3000 Ltr. No provision has been made for this water tank. Also, a temporary prayer shed has been constructed at roof top. **Jinnat Fashions Limited: Several flower pots have been found at roof top.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.13 and 8.14	
Question:	Is a clear and redundant load path to resist lateral loads provided?	
Priority Level:	Medium	
Non-Compliance Level:	1	
Description:	**Jinnat Knitwear Limited & Matin Knitwear Limited: As there are multiple bays of moment resisting frames in both direction, the lateral load path is apparent and there is redundancy. **Jinnat Apparels Limited and Flaming Fashions Limited: As there are multiple bays of moment resisting frames in both direction, the lateral load path is apparent and there is redundancy. **Jinnat Fashions Limited: Main portions of the building consists of steel braced structure & minor part is flat plate system structure with infilled masonry. So, the lateral load path is not clear and further analysis is required to understand the redundancy.	
Source of Findings:	Visual Assessment: Visually, lateral load path is apparent and redundant for Jinnat Knitwear Limited & Matin Knitwear Limited & Jinnat Apparels Limited and Flaming Fashions Limited. As main portions of Jinnat Fashions Limited consists of steel structure (PEB shed and Braced steel shed) & minor part is flat plate system structure with infilled masonry. So, the lateral load path is not clear and further analysis is required to understand the redundancy.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 8 Section 8.17 Design for Lateral Loads and 8.3.3. 2006 BNBC Part 6 Section 1.5	
Question:	Are Certificates of Occupancy available for review?	
Priority Level:	Low	
Non-Compliance Level:	1	



Description:	All three factories don't have Certificates of Occupancy.	
Source of Findings:	Document Review: Available documents review off all three factories show that the factories have not issued a Certificate of Occupancy from proper authority.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.3 Preliminary Structural Assessment	
Structural System Construction		
Question:	Is the structural system free of distress, settlement, shifting, or cracking in columns or walls?	
Priority Level:	High	
Non-Compliance Level:		
Description:	**Jinnat Knitwear Limited & Matin Knitwear Limited: Masonry cracks at 5th floor have been observed; **Jinnat Apparels Limited and Flaming Fashions Limited: Masonry cracks at 6th floor have been observed; **Jinnat Fashions Limited: Some hairlines cracks have been found in masonry wall. There is no visual sign of distress, settlement, shifting in columns but this type of masonry wall crack does not indicate distress in the structural system.	 1+2: Masonry Cracks at 6th Floor of JAL; 3: Masonry Cracks at 5th floor of JKL;
Source of Findings:	Visual Assessment: Visually confirmed	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.3.3	
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:	2	
Description:	**Jinnat Knitwear Limited & Matin Knitwear Limited: Dampness on brick wall surface at 6th floor and water ponding on the rooftop have been observed in the building; **Jinnat Apparels Limited and Flaming Fashions Limited: Standing water has been found on the rooftop; **Jinnat Fashions Limited: Dampness at wall of 2nd floor, water ponding on the rooftop have been observed in the building;	
Source of Findings:	Visual Assessment: **Jinnat Knitwear Limited & Matin Knitwear Limited: Dampness on brick wall surface at 6th floor and water ponding on the rooftop	



	have been observed in the building; **Jinnat Apparels Limited and Flaming Fashions Limited: Standing water has been found on the rooftop; **Jinnat Fashions Limited: Dampness at wall of 2nd floor, water ponding on the rooftop have been observed in the building;	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.26 Durability and Maintenance	
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:	**Jinnat Knitwear Limited & Matin Knitwear Limited: Masonry-chip aggregate concrete (MCAC) were not used in the construction of the building. **Jinnat Apparels Limited and Flaming Fashions Limited: Masonry-chip aggregate concrete (MCAC) were not used in the construction of the building. **Jinnat Fashions Limited: Roof slab constructed with MCAC is exposed to weather and is not water sealed with a protective coating to prevent water intrusion.	
Source of Findings:	Visual Assessment: Jinnat Fashions Limited: Roof slab constructed with MCAC is exposed to weather and is not water sealed with a protective coating to prevent water intrusion.	
Suggested Plan of Action:		
Suggested Deadline Date:		
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:	**Jinnat Knitwear Limited & Matin Knitwear Limited: Racks at 6th floor are not braced and anchored. There is a plastic water tank on the roof top having capacity of 3000 Ltr which also needs anchorage and bracing. **Jinnat Apparels Limited and Flaming Fashions Limited: Racks at 6th floor are not braced and anchored. There is a plastic water tank at roof top having capacity of 3000 Ltr which also needs anchorage and bracing. **Jinnat Fashions Limited: There are some unbraced racks at ground floor & first floor.	
Source of Findings:	Visual Assessment: Visual assessments indicates that, there are some racks	



	in all the three buildings which needs proper bracing and anchorage. Plastic water tanks have been observed in roof top of Jinnat Apparels Limited and Flaming Fashions Limited and Jinnat Knitwear Limited & Matin Knitwear Limited, which also needs anchorage and bracing.	
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 programs have been introduced for all the three buildings to ensure that the live loads for which a floor or roof is or has been designed will not be exceeded.	
Source of Findings:	Document Review: Available design documents review shows that, no programs have been introduced for all the three buildings to ensure that the live loads for which a floor or roof is or has been designed 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 for each floors of all the three buildings documenting the actual maximum operational loading.	
Source of Findings:	Document Review: Available documents review shows that, no Load Plans have been prepared for each floors of all the three buildings documenting the actual maximum operational loading.	
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 have been prepared for each floors of all the three buildings documenting the actual maximum operational loading.	
Source of Findings:	Document Review: No Load Plans have been prepared for each floors of all the three buildings documenting the actual maximum operational loading.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.20.5.3	
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:	3	
Description:	There is no designated representative (Factory Load Manager) for all the three factories, 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.	
Source of Findings:	Document Review: There is no evidence of a designated load manager being present in the factories.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 8 Section 8.9 Factory Load Manager	
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	

Factory Name: **Jinnat Knitwear Ltd**
Address: **Sadarganj, Kashimpur Gazipur Dhaka Bangladesh**

Assessor: **Bureau Veritas**
Date: **05 May 2014**



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Description:	There are no load plans for all the three buildings. Also, there are no markings on the floor to designate spaces and height for storage of work materials.
Source of Findings:	Visual Assessment: Visually, there are no load plans for all the three buildings. Also, there are no markings on the floor to designate spaces and height for storage of work materials.
Suggested Plan of Action:	
Suggested Deadline Date:	
Standard:	Alliance Standard Part 8 Section 8.11 Floor Load Markings