INITIAL STRUCTURAL INTEGRITY ASSESSMENT REPORT (SIAR)

Factory Name:	**ACS TEXTILES (BANGLADESH) LTD.**
Address:	**Tetlabo, Rupgonj, Narayangonj Rupgonj Dhaka Bangladesh**
Assessor:	**Bureau Veritas**
Date:	**02 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:	ACS TEXTILES (BANGLADESH) LTD.
Address:	Tetlabo, Rupgonj, Narayangonj Rupgonj Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Rupgonj
Zip Code:	1464
Audit Duration:	2 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date :	06-26-2014
Final Report Date :	10-02-2014
Are all Action Items From Previous Assessment Completed?:	Yes
Buildings in Complex :	There are 13 buildings in the factory premises out of which five are main production buildings and eight are ancillary buildings. The buildings are named as: 1)Pre-fabricated weaving shed unit-1,2)Pre-fabricated warping shed,3)Pre-fabricated Processing shed,4)Pre-fabricated Weaving Shed Unit-2,5)Pre-fabricated towel shed,6)RCC office building,7)RCC Accessories Building,8)RCC utility building with pre-fabricated shed at roof unit-1,9) Pre-fabricated chemical godown shed,10) Three story RCC staff quarter,11) Single story pre-fabricated grey & yarn Shed,2) Pre-fabricated utility shed unit-2,13) Medical Center, Child Care and pump room pre-fabricated shed.
Number of Building Levels (Stories) :	1)Pre-fabricated weaving shed unit-1: (Above grade:2, below grade:0),2)Pre-fabricated warping shed: (Above grade:2, below grade:0),3)Processing shed: (Above grade:1, below grade:0),4)Pre-fabricated Weaving Shed Unit-2: (Above grade:2, below grade:0),5)Pre-fabricated towel shed with basement: (Above grade:2, below grade:1),6)RCC office building: (Above grade:3, below grade:0),7)RCC Accessories Building: (Above grade:3, below grade:0),8)RCC utility building with pre-fabricated shed at roof unit-1: (Above grade:3, below grade:0),9)Pre-fabricated chemical godown shed: (Above grade:3, below grade:0),10)RCC staff quarter: (Above grade:3, below grade:0),11)Pre-fabricated grey & yarn Shed: (Above grade:1, below grade:0),12)Pre-fabricated utility shed unit-2: (Above grade:2, below grade:0),13) Medical Center, Child Care and pump room pre-fabricated shed: (Above grade:2, below grade:0),
Approximate Building Area (SF) :	Total area of buildings in the factory premises: 1119985.00 sft. Building wise breakdown as follows:1) Pre-fab weaving shed unit-1: 172000.00 sft,2) Pre-fabwarping shed: 83928.00 sft,3) Pre-fab Processing shed: 81000.00 sft,4) Pre-fab Weaving Shed Unit-2: 232321.00 sft,5) Pre-fab towel shed with basement: 243109.00 sft,6)RCC office building: 41084.00 sft,7)Accessories Building: 58640.00 sft,8) Utility building-01: 15942.00 sft,9) Pre-fab chemical godown: 24600.00 sft,10) RCC staff quarter: 60000.00 sft,11) Pre-fabricated grey & yarn Shed: 72546.00 sft,12)Pre-fabutility shed unit-2: 32640.00 sft,13) Single story Medical Center, Child Care and pump room pre-fabricated shed: 2175.00 sft,

Date of Building Construction :	Factory personnel informed the date of construction as follows:1) Weaving shed unit-1: Started in 2005 and finished in 2007,2) Warping shed: Started in 2006 and finished in 2007,3) Processing shed: Started in 2005 and finished in 2006,4) Weaving Shed Unit-2: Finished in 2007,5) Towel shed with basement: Started in 2009 and finished in 2012,6) RCC office building: Started in 2006 and finished in 2007,7) RCC Accessories Building: Started in 2006 and finished in 2008,8) RCC utility building with pre-fabricated shed at roof unit-1: Started in 2005 and finished in 2007,9) Chemical godown shed: Started in 2007 and finished in 2008,10) RCC staff quarter: Started in 2007 and finished in 2008,11) Pre-fabricated grey & yarn Shed: Started in 2011 and finished in 2012,12) utility shed unit-2: Started in 2007 and finished in 2009,13) Medical Center, Child Care and pump room shed: Started in 2011 and finished in 2012.
Date of Last Building Renovation/Addition :	No record for date of building renovation or addition was found from factory personnel.
Is the Building mixed use?:	No
Ancillary Structures in Complex :	1) Three story RCC office building,2) Three story RCC Accessories Building,3) Two story RCC utility building with pre-fabricated shed at roof unit-1,4) Three story pre-fabricated chemical godown shed,5) Three story RCC staff quarter,6) Single story pre-fabricated grey & yarn Shed,7) Two story pre-fabricated utility shed unit-2,8) Single story Medical Center, Child Care and pump room pre-fabricated shed.
Number of Ancillary Levels (Stories) :	1)Three story RCC office building:Stories above grade: 3,Stories below grade: 0,2) Three story RCC Accessories Building:Stories above grade: 3,Stories below grade: 0,3) Two story RCC utility building with pre-fabricated shed at roof unit-1:Stories above grade: 3,Stories below grade: 0,4) Three story pre-fabricated chemical godown shed: Stories above grade: 3,Stories below grade: 0,5) Three story RCC staff quarter:Stories above grade: 3,Stories below grade: 0,6) Single story pre-fabricated grey & yarn Shed:Stories above grade: 1,Stories below grade: 0,7) Two story pre-fabricated utility shed unit-2:Stories above grade: 2,Stories below grade: 0,8) Single story Medical Center, Child Care and pump room pre-fabricated shed:Stories above grade: 1,Stories below grade: 0,
Approximate Ancillary Structures Area (SF) :	1) Three story RCC Accessories Building: 43980.00 sft, 2) Three story pre-fabricated chemical godown shed: 24600.00 sft, 3) Two story RCC utility building with pre-fabricated shed at roof unit-1: 15942.00 sft, 4) Three story RCC office building: 30813.00 sft, 5) Two story pre-fabricated utility shed unit-2: 32640.00 sft, 6) Three story RCC staff quarter: 45000.00 sft, 7) Single story Medical Center, Child Care and pump room pre-fabricated shed: 2175.00 sft, 8) Single story pre-fabricated grey & yarn Shed: 72546.00 sft.
Number of Occupants :	Total number of occupants: 4883.1) Three Story RCC Accessories Building: 452) Single story pre-fabricated Processing shed: 920,3) Three story pre-fabricated chemical godown shed: 254) Two story pre-fabricated Weaving Shed Unit-2: 1230,5) Two story RCC utility building with pre-fabricated shed at roof unit-1: 14,6) Three story storied RCC office building: 135,7) Two story storied pre-fabricated utility shed unit-2: 7,8) Three story RCC staff quarter: 79,9) Single story Medical Center, Child Care and pump room pre-fabricated shed: 16,10) Single story pre-fabricated grey & yarn Shed: 320,11) Two story pre-fabricated weaving shed unit-1: 1320.12) Two story pre-fabricated warping shed: 225,13) Two story pre-fabricated towel shed with basement: 547.
Exterior Facade Description :	Main Building 01,02,03,04: The buildings are steel column supported mezzanine slab with braced steel frame pitched roof structure with infilled masonry wall and profile sheet at top level. The main door of the buildings are metal gate and the windows are of sliding glass in aluminum frame. Main Building 05: The building is a two storied steel column supported mezzanine slab with braced steel frame pitched roof structure with infilled masonry wall and profile sheet at top level. A little portion have RCC basement. The main door of the building is a metal sliding gate and the windows are of sliding glass in aluminum frame.
Structural System Description :	Main Building 01: The building is a two storied steel column supported mezzanine slab with braced steel frame pitched roof structure with infilled masonry wall and profile sheet at top level. Main Building 02: The building is a three storied steel column supported mezzanine slab with braced steel frame pitched roof structure with infilled masonry wall and profile sheet at top level. Main Building 03: The building is a single

	storied steel column supported mezzanine slab with braced steel frame pitched roof structure with infilled masonry wall and profile sheet at top level. Main Building 04: The building is a two storied steel column supported mezzanine slab with braced steel frame pitched roof structure with infilled masonry wall and profile sheet at top level. Main Building 05: The building is a two storied steel column supported mezzanine slab with braced steel frame pitched roof structure with infilled masonry wall and profile sheet at top level.

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:	Main Building 1: FoS of columns noted as below- Central Column: 4.6 Corner Column: 14.4 Edge Column: 9.1 The FoS in all columns are within acceptable limit. Main Building 2: Steel Portion- Central Column: 4.59 Corner Column: 13.95 Edge Column: 9.006 The FoS in all columns are within acceptable limit. Main Building 2: RCC Portion Central Column: 6.17 Corner Column: 11.08 Edge Column: 7.61 The FoS in all columns are within acceptable limit. Main Building 3: Single story Main Building 4: FoS of columns noted as below- Central Column: 4.9 Corner Column: 14.7 Edge Column: 9.2 The FoS in all columns are within acceptable limit. Main Building 5: Single storied with little mezzanine area. Ancillary Building 1: FoS of columns noted as below- Central Column: 1.33 Corner Column: 3.44 Edge Column: 2.32 The FoS in central columns are below acceptable limit. Ancillary Building 2: FoS of columns noted as below- Central Column: 1.88 Corner Column: 3.8 Edge Column: 2.73 The FoS in all columns are within acceptable limit. Ancillary Building 3: Central Column: 2.58 Corner Column: 5.69 Edge Column: 3.54 The FoS in all columns are within acceptable limit. Ancillary Building 4: Central Column: 2.44 Corner Column: 4.69 Edge Column: 3.68 The FoS in all columns are within acceptable limit. Ancillary Building 5: FoS of columns noted as below- Central Column: 3.51 Corner Column: 3.02 Edge Column: 3.45 The FoS in all columns are within acceptable limit. Ancillary Building 7: FoS of columns noted as below- Central Column: 4.44 Corner Column: 8.38 Edge Column: 6.43 The FoS in all columns are within acceptable limit.
Source of Findings:	Uploaded Document: Calculation of FoS shows that the FoS of Central Columns of Ancillary Building 1 noted to have exceeded the acceptable limit.
Suggested Plan of Action:	Engage a qualified structural engineer and carry out detail engineering assessment (DEA) to identify what remedial action is appropriate, which may include retrofitting.Reduction of load is required before any other remedial action is undertaken based on detailed structural assessment.
Suggested Deadline Date:	16 Aug 2014
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:	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:	3	
Description:	The density of operation in Warping Unit exceeds 42 psf in some spans which is documented accordingly on structural design documents. Roof of ancillary accessories building and chemical godown live loads 42 psf as there are chiller units but no structural documents found for these buildings.	
Source of Findings:	Document Review: Document review backed by visual inspection on-site	
Suggested Plan of Action:	Have a qualified structural engineer confirm that capacity to support the load is available. Load Plans complying with Alliance Standard Part 8 Section 8.20.4.3 should also be developed.	
Suggested Deadline Date:	16 Aug 2014	
Standard:	Alliance Standards Part 8 Section 8.15 Minimum Floor Design Loads	
Question:	Are credible structural design documents available for review and kept on site?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	There is a set of structural design documents except design report for all the main buildings. For all main buildings, superstructure is designed by Zameel steel and there is no record of structural engineer in the design document. But there is no credible design documents found for any ancillary buildings.	
Source of Findings:	Document Review: Document review on-site	
Suggested Plan of Action:	Have a qualified structural engineer to prepare credible as-built documents for required structures based on the requirements of Part 8 Section 8.19 of the Alliance Standard.	
Suggested Deadline Date:	16 Aug 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 office building and accessories building are constructed in 2006 and weaving unit-01, warping unit and utility building-01 are constructed after 2006. There is no indication that the design accommodates the requirement of BNBC 2006 or other comparable applicable international model building code.	
Source of Findings:	Document Review: Document review on-site	
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:	15 Aug 2014	
Standard:	Reference Alliance Standards Part 8 Section 8.2 Structural Integrity of Existing Factory Buildings	
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:	2	
Description:	Office building and Accessories building are constructed in 2006 and Weaving unit-01, warping unit and utility building-01 are constructed after 2006. All the main buildings are designed by Zameel steel however, there is no indication that the buildings has been designed taking into consideration the seismic and wind requirements of the 2006 BNBC. However, 180 km/hr wind is considered in design.	
Source of Findings:	Document Review: Document review on-site	
Suggested Plan of Action:	Have a qualified structural engineer document compliance with the seismic and wind requirements stated in the 2006 BNBC.	
Suggested Deadline Date:	15 Aug 2014	
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:	2	
Description:	All the main buildings are designed considering wind speed 180 KM/Hr but it is not as per BNBC. So, consideration of storm surge and wind loading in the design of the buildings are not as per code.	
Source of Findings:	Document Review: Document review on-site	

Suggested Plan of Action:	Engage a qualified structural engineer to confirm satisfactory structural performance of the buildings under wind loading.	
Suggested Deadline Date:	16 Aug 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:	If the structure has been previously expanded, was the structural impact on the entire structure analytically evaluated and confirmed by a qualified structural engineer.	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	There is a vertical expansion in ancillary building-7 which is a storage shed on roof which is not shown in approval drawings.	
Source of Findings:	Visual Assessment: Visual inspection on-site	
Suggested Plan of Action:	Have a qualified structural engineer complete an analytical evaluation of the structural impact of the addition.	
Suggested Deadline Date:	17 Aug 2014	
Standard:	Reference Alliance Standards Part 8 Section 8.1 Applicability of Building Code.	
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:	There are no heavy equipment, water tank or stored material in the main buildings. However, for ancillary building 01, a water tank with 2000 liter capacity is observed, for ancillary building 03, a water tank with 5000 liter capacity and 2 chiller units are observed, for ancillary building 05 a water tank with 5000 liter capacity is observed, for ancillary building 07, 03 chiller units found at rooftop.	
Source of Findings:	Visual Assessment: Visual inspection on-site	
Suggested Plan of Action:	Engage a qualified structural engineer to confirm and document that provisions have been made to accommodate concentrated loads. If provisions have not been made, have a qualified structural engineer develop a remediation plan.	
Suggested Deadline Date:	16 Aug 2014	

Standard:	Alliance Standard Part 8 Section 8.13 and 8.14	
Structural System Construction		
Question:	Are the performance of key structural elements such as columns, slender columns, flat plates and transfer structures satisfactory?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	In ancillary building-2, additional temporary steel columns are found supporting the structure.	
Source of Findings:	Visual Assessment: Visual inspection on-site	
Suggested Plan of Action:	Have a qualified structural engineer carry out detailed structural assessment to understand the cause of lack of performance of the structure as well as for identifying appropriate remedial action.	
Suggested Deadline Date:	16 Aug 2014	
Standard:	Alliance Standard Part 8 Section 8.3.3	
Question:	Is the structural system free of settlement cracking, excessive perimeter separations, and unlevel floors attributable to foundation settlements?	
Priority Level:	High	
Non-Compliance Level:	3	
Description:	There are a good numbers of cracks and separations noticed in the walls of ancillary multistory buildings which may indicate possible settlement of foundation.	
Source of Findings:	Visual Assessment: Visual observation on-site	
Suggested Plan of Action:	Have a qualified structural engineer provide further analysis and testing of the noted settlement and crack issues. If required, a remediation plan shall also be provided by the qualified structural engineer.	
Suggested Deadline Date:	16 Aug 2014	
Standard:	Reference Alliance Standards Part 8 Structural Design Section 8.2 Structural Integrity of Existing Factory Buildings	
Question:	Is the structural system free of distress, settlement, shifting, or cracking in columns or walls?	
Priority Level:	High	
Non-Compliance Level:	2	
Description:	The structural system of main production buildings are free of distress,	

	settlement, shifting, or cracking in columns or walls. Ancillary multistory RCC structures (ancillary building 1, 2 and 5 specially) are found with excessive amount of cracks on masonry walls.	
Source of Findings:	Visual Assessment: Visual assessment on-site	
Suggested Plan of Action:	Have a qualified structural engineer provide further testing and analysis of cracking in walls and provide a remediation plan to correct noted issues.	
Suggested Deadline Date:	16 Aug 2014	
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:	There is no maintenance program for all areas including areas with efflorescence, dampness, standing water on rooftops, and corrosion. Corrosion have been observed in main building 03 at purlins and at ancillary building 7 roof top shed steel members. There are dampness and standing water on rooftops in almost all the ancillary buildings.	
Source of Findings:	Visual Assessment: Visual inspection on-site	
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:	16 Aug 2014	
Standard:	Alliance Standard Part 8 Section 8.26 Durability and Maintenance	
Question:	If yes, have the structural members constructed with MCAC been investigated by an appropriate program of in-situ testing and representative destructive testing or core samples?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	The structural members constructed with MCAC have not been investigated by an appropriate program of in-situ testing and representative destructive testing or core samples. The column stress calculated taking into account the strength of concrete from standard does not show any overstress for main production building-2 RCC portion. But for ancillary building 1 and 2 central columns are observed overstressed.	
Source of Findings:	Visual Assessment: Visual inspection on-site and calculation	
Suggested Plan of Action:	Engage a qualified structural engineer and carry out structural assessment to identify what remedial action is appropriate, which may include retrofitting.	

	Reduction of load is required before any other remedial action is undertaken based on detailed structural assessment.	
Suggested Deadline Date:	16 Aug 2014	
Standard:	Reference Alliance Standards Part 7 Building Materials Section 7.2 Masonry-chip aggregate concrete (MCAC)	
Question:	Are structural steel members free of corrosion, physical damage or other types of deterioration?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	There are signs of corrosion in purlin (Main Building-3), column (Main Building-5) and roof top shed members (Ancillary Building-7).	
Source of Findings:	Visual Assessment: Visual Inspection on-site	
Suggested Plan of Action:	Complete further testing on areas of deterioration in order to understand the level of corrosion and weakening of the member and have a qualified structural engineer develop a remediation plan.	
Suggested Deadline Date:	16 Aug 2014	
Standard:	Alliance Standard Part 8 Section 8.26	
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:	In the store rooms of main building-5, ancillary building 1, 2 there are storage material racks, which are not braced for earthquake force. There are tanks and chillers on the roofs of ancillary-2,3,5,7 with considerable height, which are not braced or anchored properly.	
Source of Findings:	Visual Assessment: Visual inspection on-site	
Suggested Plan of Action:	Adequately anchor and brace all non-structural elements to resist earthquake forces to comply with the BNBC and Alliance Standard.	
Suggested Deadline Date:	16 Aug 2014	
Standard:	Alliance Standards Part 8 Section 8.18 Seismic Bracing of Key Non-Structural Elements and 2006 BNBC Part 6	

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:	1	
Description:	The roofs of main production building 2 (some portion only) and the ancillary multistory buildings are of MCAC aggregate but no protective sealing is available.	
Source of Findings:	Visual Assessment: Visual inspection on-site	
Suggested Plan of Action:	Provide a protective coating at the structural elements constructed with MCAC exposed to rainfall or other sources of water. Have protective coating approved by the Alliance or a qualified structural engineer. Or provide 2% slope on the exposed surface to prevent accumulation of water.	
Suggested Deadline Date:	27 Sep 2014	
Standard:	Alliance Standards Part 7 Building Materials Section 7.2 Masonry-chip aggregate concrete (MCAC).	
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:	There is no program that will ensure that the designated load in each floor will not be exceeded.	
Source of Findings:	Document Review: No evidence of existence of any program to control the live load on the floor as per the floor load plan.	
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:	02 Aug 2014	
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:	There is no load plan available showing the actual maximum operational loading that is allowable.	
Source of Findings:	Document Review: There is not load plan available in the documentation of the factory.	
Suggested Plan of Action:	Have a qualified structural engineer develop Floor Loading Plans per the requirements of Part 8 Section 8.20.5.3	
Suggested Deadline Date:	16 Aug 2014	
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:	Floor load plans are not prepared and posted.	
Source of Findings:	Visual Assessment: Visual inspection on-site	
Suggested Plan of Action:	Have a qualified structural engineer prepare load plans including the information required in Section 8.20 of the Alliance Standard and have it posted in all required location.Floor load plans should be prepared & visibly posted on all levels of all buildings,	
Suggested Deadline Date:	16 Aug 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:	3	
Description:	There is no load plan. Also, there is no marking on the floor to designate spaces and height for storage of work materials.Some markings have been provided in main building-4,but they are not followed.Whereas, there is no maintenance plan.	
Source of Findings:	Visual Assessment: Visual inspection on-site	
Suggested Plan of Action:	Have a qualified structural engineer prepare a load plan for each floor and have the floors marked for designating storage area as per the developed load plan.	
Suggested Deadline Date:	16 Aug 2014	

Standard:	Alliance Standard Part 8 Section 8.11 Floor Load Markings	