

EQUIVALENT INITIAL STRUCTURAL SAFETY ASSESSMENT

Factory Name: **DB Tex Ltd.**

Address: **Nayapara, Kashimpur Gazipur Gazipur Dhaka
Bangladesh**

Assessor: **Bureau Veritas**

Date: **12 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.



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GENERAL INFORMATION

General Information

Factory Name:	DB Tex Ltd.
Address:	Nayapara, Kashimpur Gazipur Gazipur Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Gazipur
Zip Code:	
Audit Duration:	
Re-Audit:	Re-Audit After 0 Months
Draft Report Date :	05-27-2014
Final Report Date :	10-14-2014
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex :	There are 16 buildings in the factory premises out of which nine are main production buildings, two are under construction buildings and 5 are ancillary buildings.(Number 1 to 9 are main buildings). The buildings are named as:1) MTL- Single story prefab production shed, 2) MTL- Three story RCC building, 3) HTL- Single story prefab production shed, 4) HTL- Four story steel structure building,5) HWL- Single story prefab production shed with mezzanine,6) DBTL- Single story prefab production shed,7) DBTL- Three story RCC building,8) DBTL- Three story RCC building,9) DBTL- Four story RCC building,10) Two Prefabricated Steel structure(Under construction),11) One five story R.C.C building(Under construction),12) Single story prefab boiler and compressor shed,13) Single story Generator and power control R.C.C Building,14) Single story Fire command CI shed,15) Single story Security building,16) Pump house building.(The buildings under construction will be main buildings when complete)
Number of Building Levels (Stories) :	1)MTL-1 prefab production shed: Above grade: 1,below grade: 0,2) MTL-2 RCC building: Above grade: 3, below grade: 0, 3) HTL-1 prefab production shed: Above grade: 1, below grade: 0, 4) HTL-2 steel structure building: Above grade: 4, below grade: 0, 5) HWL prefab production shed with mezzanine: Above grade: 1, below grade: 0,6) DBTL-1 prefab production shed: Above grade: 1, below grade: 0, 7) DBTL-2 RCC building: Above grade: 3, below grade: 0,8) DBTL-3 RCC building: Above grade: 3, below grade: 0,9) DBTL-4 RCC building: Above grade: 4,below grade: 0,10) Two prefabricated Steel structure(Under construction), 11) One five story R.C.C building(Under construction),12) Prefab boiler and compressor shed: Above grade: 1, below grade: 0, 13) Generator and power control R.C.C Building: Above grade: 1,below grade: 0, 14) Fire command CI shed: Above grade: 1, below grade: 0,15) Security building: Above grade: 1, below grade: 0, 16) Pump house building: Above grade: 1, below grade: 0.
Approximate Building Area (SF) :	Total area of all buildings in the factory premises: 373260.12 sft. Building wise breakdown as follows:1) MTL-1 Single story prefab production shed: 38698.12 sft, 2) MTL-2 Three story RCC building: 12932 sft,3) HTL-1 Single story prefab production shed: 81900 sft, 4) HTL-2 Four story steel structure building: 46875 sft,5) HWL



	Single story prefab production shed with mezzanine: 21914 sft, 6) DBTL-1 Single story prefab production shed: 96442 sft, 7) DBTL-2 Three story RCC building: 21332 sft, 8) DBTL-3 Three story RCC building: 17800 sft, 9) DBTL-4 Four story RCC building: 16742 sft, 10) Two nos Prefabricated Steel structure (Under construction), 11) One nos five story R.C.C building (Under construction), 12) Single story prefab boiler and compressor shed: 3965 sft, 13) Single story Generator and power control R.C.C Building: 4390 sft, 14) Single story Fire command CI shed: 400 sft, 15) Single story Security building: 120 sft, 16) Pump house building: 9750 sft.
Date of Building Construction :	Factory personnel informed the date of construction as follows: 1) MTL-1 Single story prefab production shed: Finished in 2004, 2) MTL-2 Three story RCC building: Finished in 2004, 3) HTL-1 Single story prefab production shed: Finished in 2006, 4) HTL-2 Four story steel structure building: Finished in 2006, 5) HWL Single story prefab production shed with mezzanine: Finished in 2006, 6) DBTL-1 Single story prefab production shed: Finished in 2007, 7) DBTL-2 Three story RCC building: Finished in 2007, 8) DBTL-3 Three story RCC building: Finished in 2007, 9) DBTL-4 Four story RCC building: Finished in 2007.
Date of Last Building Renovation/Addition :	No record of date of renovation/addition has been found from factory personnel.
Is the Building mixed use?:	No
Ancillary Structures in Complex :	1) Single story prefab boiler and compressor shed, 2) Single story Generator and power control R.C.C Building, 3) Single story Fire command CI shed, 4) Single story Security building, 5) Pump house building.
Number of Ancillary Levels (Stories) :	1) Single story prefab boiler and compressor shed: Stories above grade: 1, Stories below grade: 0, Occupied levels: 1, 2) Single story Generator and power control R.C.C Building: Stories above grade: 1, Stories below grade: 0, Occupied levels: 1, 3) Single story Fire command CI shed: Stories above grade: 1, Stories below grade: 0, Occupied levels: 1, 4) Single story Security building: Stories above grade: 1, Stories below grade: 0, Occupied levels: 1, 5) Pump house building: Stories above grade: 1, Stories below grade: 0, Occupied levels: 1.
Approximate Ancillary Structures Area (SF) :	1) Single story prefab boiler and compressor shed: 3965 sft, 2) Single story Generator and power control R.C.C Building: 4390 sft, 3) Single story Fire command CI shed: 400 sft, 4) Single story Security building: 120 sft, 5) Pump house building: 9750 sft.
Number of Occupants :	Total number of occupants: 916, 1) MTL-1 and MTL-2: 270, 2) HTL-1 and HTL-2: 314, 3) HWL: 46, 4) DBTL-1, DBTL-2, DBTL-3, DBTL-4: 257, 5) Single story prefab boiler and compressor shed: 4, 6) Single story Generator and power control R.C.C Building: 2, 7) Single story Fire command CI shed: 1, 8) Single story Security building: 12, 9) Pump house building: 10.
Exterior Facade Description :	Hamza Textiles Ltd:- The exterior facade of the RCC buildings & single PEB shed, four storied PEB building are masonry wall with cement plaster surface. The exterior facade of the washing unit is masonry wall surface with cement plastered mortar and pointing works. The windows are glazed swinging and sliding type with metallic frames. Mymun textile ltd :- The exterior facade of the RCC buildings & single PEB shed are masonry wall surface with cement plastered mortar. The windows are glazed swinging and sliding type with metallic frames. DB tex: The exterior facade of the RCC buildings & single PEB shed are masonry wall on brick cladding surface. The windows are glazed swinging and sliding type with metallic frames. The exterior facade of the ancillary shed buildings: The exterior surface is masonry wall normal plastered with cement mortar.
Structural System Description :	The main portion of the factory building is single storied pre engineered structure. The store portion of the building in the middle is having four storied pre engineered structure. The front portion of the building is having R.C framed structure. DB tex: DB tex Ltd. is mainly a compound building. Its major portion is consist of steel frame structure single PEB shade and the minor portion is consist of RCC framing system at north side (C-block/three storied) & south side (D-block /three storied & E-block /four storied) which have been attached of the single PEB shed building.

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ASSESSMENT FINDINGS

Structural System Design

Question:	Are credible structural design documents available for review and kept on site?	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	Mymum Textile: Partial structural design documents are available and those are kept on site except a portion of the steel structure and design reports, which are not available. DB Tex: The structural design documents are available and are kept on site except a portion of the steel structure and design reports. It can be mentioned here that on the audit day (05-12-2005), the authority of DB Tex could not show the design documents of the PEB steel structure. Afterwards, they supplied the design document of the PEB structure by mail on 05-18-2014. The steel structure design documents are incomplete. The detailed steel section was nowhere clearly mentioned, and also the design calculations were not satisfactory as per BNBC-2006, section 1.9.1 Hamza tex & washing Ltd.: The structural design documents are available and all those are kept in site except portion of the steel structure & design report. It can be mentioned here the audit day (12-05-2005) the authority of the hamza tex could not show the design documents of the PEB steel structure. After they supplied the design document of the PEB structure by mail on the dated 18-05-2014. The steel structure design documents are incomplete. The detailed steel section was no were clearly mentioned & also design calculation were not satisfactory as per BNBC-2006, section 1.9.1	
Source of Findings:	Document Review: Mymum Textile	
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:	19 Aug 2014	
Standard:	Alliance Standard Part 8 Section 8.19 Required Structural Documentation for New and Existing Factories	
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:	3	
Description:	Mymun Textile: No concentrated loads were found. DB tex: No concentrated loads were found. Hamza Tex & Washing Ltd.: No special provisions were made for any concentrated load on any floor. There are fabric goods on the third floor in the store building which are not shown in the structural design. These fabric goods act as a concentrated load on the third floor. There is no	



Standard:	Alliance Standards Part 8 Section 8.15 Minimum Floor Design Loads	
Question:	Are Certificates of Occupancy available for review?	
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	Hamza Textile: They have provided evidence for occupancy by the recognized architect and engineer with the MIAB and MIEB numbers, respectively. DB Tex: They have provided evidence for occupancy by the recognized architect and engineer with the MIAB and MIEB numbers, respectively. Mymun Tex : The certificates of occupancy are not available for review.	
Source of Findings:	Document Review: Not all Certificates of Occupancy are available.	
Suggested Plan of Action:	Provide Certificates of Occupancy for review.	
Suggested Deadline Date:	19 Aug 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:	1	
Description:	Mymun Textile: A geotechnical report with the proper seal and signature of a geotechnical engineer was available at the site. DB Tex: A geotechnical report with the proper seal and signature of a geotechnical engineer was available and kept on site, but there was no mentioned IEB number. Hamza Tex & washing Ltd.: A geotechnical report with the proper seal and signature of a geotechnical engineer were available and kept on site but the IEB number was not mentioned.	
Source of Findings:	Document Review: Geotechnical reports were reviewed.	
Suggested Plan of Action:	Please obtain the full credentials of the original geotechnical engineer (including the IEB number).	
Suggested Deadline Date:	19 Aug 2014	
Standard:	Alliance Standard Part 8 Section 8.2 Structural Integrity of Existing Factory Buildings	
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:	3
Description:	In the Hamza Tex and Washing Ltd. buildings, there are some racks on the second floor in the store building in the PEB structure in the washing unit that are not braced for earthquake forces. In the DB Tex building, there are long high steel boxes at D block on the first floor that are not braced for earthquake forces. In the Mymun Tex building, there is one non-braced plastic water tank on the rooftop and also non-structural racks on the ground and first floors which are not braced for earthquake forces.
Source of Findings:	Visual Assessment: Visual Assessment on May 12, 2014
Suggested Plan of Action:	Adequately anchor and brace all non-structural elements to resist earthquake forces to comply with the BNBC and Alliance Standards.
Suggested Deadline Date:	30 Sep 2014
Standard:	Alliance Standards Part 8 Section 8.18 Seismic Bracing of Key Non-Structural Elements and 2006 BNBC Part 6
Question:	Are structural steel members free of corrosion, physical damage or other types of deterioration?
Priority Level:	Medium
Non-Compliance Level:	2
Description:	Mymun Textiles: there are signs of corrosion in the steel members of the structure on the ground floor. DB Tex: structural steel members are free of corrosion, physical damage, or other types of deterioration. Hamza Tex & Washing Ltd: structural steel members are free of corrosion, physical damage, or other types of deterioration.
Source of Findings:	Visual Assessment: Visual Assessment on May 12, 2014
Suggested Plan of Action:	For Mymun Tex: 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:	19 Aug 2014
Standard:	Alliance Standard Part 8 Section 8.26
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:	New buildings are under construction. But during the construction Construction Practices and Safety requirements of Section 9 are not followed. The under-construction buildings are: 1) Pump House building, 2) Five storied RCC building, 3) Prefabricated Steel structure.
Source of Findings:	Visual Assessment: Visually confirmed
Suggested Plan of Action:	Construction Practices and Safety requirements of Section 9 should be followed.
Suggested Deadline Date:	01 Dec 2014
Standard:	Alliance Standard Part 9 Construction Practices and Safety.

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:	1
Description:	There is no program for all main and ancillary buildings to ensure the live loads for which a floor or roof is or has been designed will not be exceeded.
Source of Findings:	Document Review: Documents do not show programs for main and ancillary buildings that ensure the live loads for which a floor or roof is or has been designed will not be exceeded.
Suggested Plan of Action:	Develop a program to ensure that all live loads for which a floor or roof has been designed will not be exceeded. The designated Load Manager shall oversee this program and ensure it is enforced.
Suggested Deadline Date:	05 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 for the Mymun Textiles building, DB Tex building, or Hamza Tex & Washing Ltd building.
Source of Findings:	Document Review: Documents do not show load plans with maximum operational loads that are allowed.
Suggested Plan of Action:	Have a qualified structural engineer develop Floor Loading Plans per the requirements of Part 8 Section 8.20.5.3.

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Suggested Deadline Date:	19 Aug 2014	
Standard:	Alliance Standard Part 8 Section 8.10 Floor Loading Plans (Load Plans)	
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 floor load plan. Also, there are no markings on the floor to designate spaces and height for the storage of work materials in the Mymun Textile building, DB tex building, or Hamza Tex & Washing Ltd building.	
Source of Findings:	Visual Assessment: Visual Assessment on May 12, 2014	
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:	19 Aug 2014	
Standard:	Alliance Standard Part 8 Section 8.11 Floor Load Markings	
Question:	Are Floor Load Plans posted as required?	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	Floor Load Plans are not posted as required for any building in this complex.	
Source of Findings:	Visual Assessment: Visual Assessment on May 12, 2014	
Suggested Plan of Action:	Have a qualified structural engineer prepare load plans including the information required in Section 8.20 of the Alliance Standard.	
Suggested Deadline Date:	19 Aug 2014	
Standard:	Alliance Standard Part 8 Section 8.20.5.3	