

Open Questions - Assessment Report - Nirapon

Factory Name : **Toufiq Denim & Knitwear Ltd.**

Address: **House #A-3/2, Ward # 05, Talbag, Sa Savar, Dhaka-1340, Dhaka Dhaka Bangladesh**

Assessor: **Imarat Designers & Consultants**

Audit Scope: **Nirapon Initial Structural Safety Assessment**

Audit Date : **07 Sep 2019**





Introduction to the Report

The following report contains a site profile and summary of non-conformities identified during an onsite assessment commissioned by the Nirapon and conducted by Nirapon Vetted Qualified Assessment Firm (QAF). The assessment was conducted against the relevant standard and regulations of Bangladesh National Building Code (BNBC), National Fire Protection Association (NFPA), IEC and National Tripartite Plan of Action (NTPA). The goal of the Nirapon process is to provide clear and practical technical requirements by which Bangladeshi Ready-Made Garment (RMG) Factories producing for Nirapon 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 Nirapon organization and its members will seek to further support factory improvements through technical assistance, training and implementation support for functional Worker Committees.

The contents of the report do not constitute a guarantee of compliance with the applicable laws, the relevant 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 Qualified Assessment Firm.

Neither the vetted QAF nor the Nirapon can certify or guarantee the quality, outcome, or effectiveness of actions taken in response to the report.

It should also be noted that any changes in layout of a factory or new construction, extension or alterations to any of the factory buildings are likely to create additional NC's; leading to further action plans being added to any existing or previously signed off corrective action plan (CAP).

For more information and report feedback please go to: www.nirapon.org

FACTORY INFORMATION

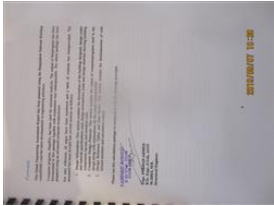
General Information	
Factory Name	Toufiq Denim & Knitwear Ltd.
Basic Information	
Address :	House #A-3/2, Ward # 05, Talbag, Sa Savar, Dhaka-1340, Dhaka Dhaka Bangladesh
Country :	Bangladesh
Province/State :	Dhaka
City/Town :	Dhaka
Postal Code :	
Audit Duration :	1 Days
Re-Audit :	No Re-Audit
Draft Report Date :	23 September 2019
Final Report Date :	26 September 2019
Buildings in Complex :	There are 04 structures in the complex. Among them, 01 is Main Building and 03 are Ancillary Structures as per information was given by the owner's representative. In this Initial audit, 01 nos. of Main Production Buildings and 03 nos. of Ancillary Structures have been audited. Main Building: - 1) Main Building. Ancillary Building: - 1) Generator Shed. 2) Compressor Shed. 3) Boiler Room.
Number of Building Levels (Stories) :	1) Main Building = 7 (GF+6)
Approximate Building Area (SF) :	1) Main Building = Ground Floor_6584sft+ 1st Floor_6584 sft + 2nd Floor_6583 sft + 3rd Floor_6583 sft + 4th Floor_6583 sft + 5th Floor_6583 sft + 6th Floor_1766 sft = 41266 sft.
Date of Building Construction :	1) Main Building _ Completion year of construction 2017. 2) Generator Shed_ Completion year of construction 2017. 3) Compressor Shed_ Completion year of construction 2018. 4) Boiler Room_ Completion year of construction 2019.
Date of Last Building Renovation/Addition :	The main building has been retrofitted as per the recommendation of The Civil and Structures in 2018.
Is the Building mixed use? :	No
Ancillary Structures in Complex :	There are total 03 nos. of Ancillary Structures; 01 nos. of Ancillary Structures have been assessed in this Initial audit. 1) Generator Shed. 2) Compressor Shed. 3) Boiler Room.

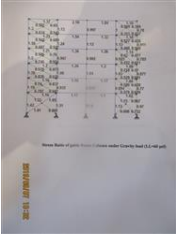



Number of Ancillary Levels (Stories) :	03 nos. of Ancillary Building were assessed under the scope of this initial audit. 1) Generator Shed = 1 (GF Only). 2) Compressor Shed = 1 (GF Only). 3) Boiler Room = 1 (GF Only).
Approximate Ancillary Structures Area (SF) :	Total 03 nos. of Ancillary Structures audited in this visit: - 1) Generator Shed = Ground Floor_162 sft. 2) Compressor Shed = Ground Floor_160 sft. 3) Boiler Room = Ground Floor_67 sft. Total ancillary area= 389 sft.
Number of Occupants :	1. Main Building =Ground Floor_45+ 1st Floor_65+ 2nd Floor_153+ 3rd Floor_47+ 4th Floor_36+ 5th Floor_26+ 6th Floor_70= 442 Persons. 2. Generator Shed= Ground Floor_0 Person. 3. Compressor Shed= Ground Floor_0 Person. 4. Boiler Room= Ground Floor_0 Person.
Exterior Facade Description :	1) Main Building = Brick Masonry Wall with glass window. 2) Generator Shed = Brick Masonry Wall. 3) Compressor Shed = Brick Masonry Wall. 4) Boiler Room = Brick Masonry Wall.
Structural System Description :	1) Main Building = Steel structure with deck slab and spread footing. 2) Generator Shed = Steel pipe supported tin shed a concrete footing. 3) Compressor Shed = Steel pipe supported tin shed with a concrete footing. 4) Boiler Room = Masonry Wall structure with a concrete roof and masonry footing.
<p>Issues were not found during the structural integrity assessment that required the Emergency Escalation Protocol (and referral to NTC Review Panel)?</p> :	Yes




Last Assessment Information	
Auditor	Imarat Designers & Consultants
Assessment Date	07 Sep 2019

ASSESSMENT FINDINGS

NP - Structural Safety Report - Structural System Design	
Question	Are Certificates of Occupancy available for review?
Level(Priority Level)	Low
Non-Compliance Level	3
Description	Certificates of Occupancy are not found.
Source of Findings	Document Review: Certificates of Occupancy are not found.
Suggested Plan of Action	Provide Certificates of Occupancy for review.
Suggested Deadline Date	07 Nov 2019
Standard	2006 BNBC Part 2
Evidence	
Question	Are credible structural design documents available for review and kept on site?
Level(Priority Level)	Medium
Non-Compliance Level	3
Description	Construction design documents of the main building are found where few members are overstressed. Retrofitting has been done. But, the design report of the structure by the consultant who has proposed the retrofitting is not available.
Source of Findings	Photograph: Structural report by the design engineer.
Suggested Plan of Action	Have a qualified structural engineer prepare credible as-built documents based on the requirements of BNBC.
Suggested Deadline Date	07 Nov 2019
Standard	2006 BNBC Part 6 Chapter 1 Section 1.9 and NTPA Guidelines Part A Section 16
Evidence	<div><p>Structural report by the design engineer.</p></div>
Question	Can credible structural documentation indicating general conformance with 2006 BNBC or other comparable applicable international model building code be produced?

Level(Priority Level)	Medium
Non-Compliance Level	3
Description	Construction design documents of the main building are found where few members are overstressed. Retrofitting has been done. But, the design report of the structure by the consultant who has proposed the retrofitting is not available.
Source of Findings	Photograph:
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 2006 BNBC Part 6 Chapter 1 Section 1.9 and NTPA Guidelines Part A Section 17
Suggested Deadline Date	07 Nov 2019
Standard	2006 BNBC Part 6 Chapter 1 Section 1.9 and NTPA Guidelines Part A Section 17
Evidence	<div></div> <p>The overstressed column in the available design report.</p>
Question	If built after 2006, can documented compliance with the seismic and wind requirements of the 2006 BNBC be provided?
Level(Priority Level)	Medium
Non-Compliance Level	3
Description	Construction design documents of the main building are found where few members are overstressed. Retrofitting has been done. But, the design report of the structure by the consultant who has proposed the retrofitting is not available.
Source of Findings	Photograph:
Suggested Plan of Action	Have a qualified structural engineer document compliance with the seismic and wind requirements stated in the 2006 BNBC and NTPA Guidelines.
Suggested Deadline Date	07 Nov 2019
Standard	2006 BNBC Part 6 Chapter 1 Section 1.5 and NTPA Guidelines Part A Section 17

Source of Findings	Photograph: Water tanks on the roof of the main building.
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	07 Nov 2019
Standard	2006 BNBC Part 6 Chapter 1 Section 1.4.2 & Chapter 2 Section 2.2.6
Evidence	 <p>Water tanks on the roof of the main building.</p>

NP - Structural Safety Report - 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?
Level(Priority Level)	Medium
Non-Compliance Level	3
Description	There are multiple storage racks in the main building. These racks are not adequately anchored and braced to resist earthquake forces. Also, the rooftop water tanks are not anchored.
Source of Findings	Photograph: storage rack and water tank photograph.
Suggested Plan of Action	Adequately anchor and brace all non-structural elements to resist earthquake forces to comply with the BNBC and NTPA Guidelines.
Suggested Deadline Date	17 Oct 2019
Standard	NTPA Guidelines Part A Section 8 and 2006 BNBC Part 6 Chapter 2 Section 2.5.8
Evidence	   <p>Storage rack at 3rd floor. Storage rack at 4th floor. Unbraced water tanks.</p>

NP - Structural Safety Report - Structural Safety Programs	
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Question	Have Load Plans been prepared for each floor documenting the actual maximum operational loading that is intended and/or allowable on each floor.
Level(Priority Level)	Low
Non-Compliance Level	3
Description	Live load plans have not been prepared.
Source of Findings	Photograph:
Suggested Plan of Action	Have a qualified structural engineer develop Floor Loading Plans per the requirements of NTPA Guidelines Part A Section 4.
Suggested Deadline Date	19 Oct 2019
Standard	NTPA Guidelines Part A Section 4 & Section 16
Evidence	
Question	Are Floor Load Plans posted as required?
Level(Priority Level)	Low
Non-Compliance Level	3
Description	Floor Load Plans are not posted.
Source of Findings	Visual Assessment: Floor Load Plans are not posted.
Suggested Plan of Action	Have a qualified structural engineer prepare load plans including the information required in NTPA Guidelines Part A Section 16.
Suggested Deadline Date	29 Oct 2019
Standard	2006 BNBC Part 6 Chapter 1 Section 1.4.5 and NTPA Guidelines Part A Section 4.1.3
Evidence	
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?
Level(Priority Level)	Low
Non-Compliance Level	3
Description	No load marking has been found in the storage areas.
Source of Findings	Photograph: No load marking.
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	29 Oct 2019
Standard	NTPA Guidelines Part A Section 4.1.2

Evidence	<div>   </div> <div> No load marking at the 5th-floor storage area. No load marking at the 4th-floor storage areas. </div>
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?
Level(Priority Level)	Medium
Non-Compliance Level	3
Description	No program in place to ensure that the design live loads.
Source of Findings	
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	24 Oct 2019
Standard	2006 BNBC Part 6 Chapter 1 Section 1.4.6 and NTPA Guidelines Part A Section 4.1
Evidence	
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?
Level(Priority Level)	Low
Non-Compliance Level	3
Description	There is a designated Factory Load Manager. But he is not properly trained regarding the structural floor capacity.
Source of Findings	Photograph: Factory Load Manager ID.
Suggested Plan of Action	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	15 Oct 2019
Standard	NTPA Guidelines Part A Section 4.1

Evidence



Factory Load Manager ID.