

INITIAL FIRE SAFETY INSPECTION REPORT

TED Bernhardt Textile Industry Ltd.

RSC ID: 24715

Factory Address: Gazipura, Ershadnagor, Tongi, Gazipur 1704

Geographical Coordinates of factory building: 23.926392 N, 90.391860 E

Other Factories: None



Inspected By: Dilip Kumar Mondal and Md. Jahidul Kabir

Date: 7 September 2023

Fire Safety Inspection Report

Introduction:

TED Bernhardt Textile Industry Ltd. complex was surveyed for fire safety on **07/09/2023** by The RSC Inspection Team. The purpose of the survey was to identify significant fire safety issues and to provide recommendations for remediation based on applicable standards specified by the RSC. The scope of this initial fire safety inspection was limited to the review and identification of major fire safety issues. The inspection did not include identification of minor deficiencies, which will be further addressed as part of follow-up inspections.

Limitations

The information in this fire safety inspection report was obtained during a visit to the facility and during interviews with local factory management. It has not been possible to provide independent verification for all the information and data collected, and, therefore, The RSC cannot accept general responsibility for omissions or errors arising from inaccuracies in this report from the information obtained.

The findings and recommendations in this report are not intended to imply, guarantee, ensure or warrant compliance with any government regulations. Additionally, the results do not imply in any way that compliance with the findings or recommendations as stated in this report will eliminate all hazards, risks or exposures or that hazards, risks or exposures not referred to in this report do not exist. Compliance with the findings and recommendations stated in this report does not relieve the factory owner from obligation to comply with specific project requirements, industry standards, or the provisions of any local government regulations.

General Factory Information

Factory Building name(s): Factory Building name(s) in this ID:24715:

1. Building 1/(G+7) (February 2014 to October 2021),
Design Approved by Tongi Pourashava 8 January 2013 and RAJUK on 16 May 2019
Construction Period Interim.

Total area of the building-1: 138829 sft.(per floor: 21274 sft. average)

2. Building-2 Generator, Security and Substation Shed(May 2018 to August 2018),

3. Building-3 Child care, Medical & Fire Control Building

4. Building-4 Boiler Shed

5. Building-5 Wastage Shed

Findings & Recommendations :

Table 1 summarizes the major fire safety issues identified during the inspection. Recommendations have been provided to address each issue. An implementation schedule shall be developed by the factory to remediate each of the findings. The specific timing of improvements, including any requested extensions due to design / installation constraints, shall be submitted to the RSC for review.

Table-1:

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	The exit stairs are separated from work areas & other spaces on each floor by fire rated construction. Location: Main Building.	Stair shall be enclosed with a minimum 2-hr fire-rated construction. Seal all unprotected openings and provide minimum 1.5 -hr. fire rated doors to separate the exit stairs from work areas and other building spaces on all floor levels. Ensure that the fire doors are self-closing, positive latching and that they are provided with fire exit (panic) hardware where serving production floors. Provide a fire-resistive rated assembly between the exterior exit stairs and the building up to 10 ft. beyond the end of the stair to achieve the required separation. The rated assembly shall be approved and/or designed by a qualified fire protection engineer. Ensure that the fire doors are self-closing and positive latching and that they are provided with fire exit (panic) hardware where serving production floors. If fire doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system.	Within 3 Months



F-2	Fire Rated Construction	Penetrations through floor/ceiling assemblies are found unsealed.	Seal all penetrations and openings in floor/ceiling (full thickness of the floor/ceiling: minimum 3 hr.) assemblies by third-party certified fire rated materials to maintain the fire resistance rating. or, Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required.	Within 3 Months
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F-3	Fire Rated Construction	Room used for combustible storage are not properly separated by fire rated construction. Location: Ground floor at Main Production Building.	Openings from exit enclosure to storage room, generator and hazard spaces shall be provided with a vestibule with fire rated construction and openings. Provide a 1.5 hr. fire rated door on the exit stair side and a 1-hr. fire rated door on the store, generator, substation room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.	Within 3 Months
				
F-4	Fire Rated Construction	Stair-1 was not directly discharge to the exterior of the building on ground floor.	Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or provide direct access to grade. Exit discharge shall not reenter a building in accordance with RSC Technical Guideline (Standard)-6.17.	Within 3 months



F-5	Fire-Rated Construction	The exit discharge path [serving S-W at stair-3] is less than 10 ft wide and is not separated from the building interior.	Seal all penetrations and openings to the interior of the building along the discharge path, up to a height of 10 ft, to provide a minimum 1-hr fire separation. Alternatively, provide a second remote discharge path to the public way (only include this if feasible).	Within 3 Months
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F-6	Fire Rated Construction	Elevator shafts are directly open into the exit stair for stair-1.	Elevators shall not open into an exit enclosure as per RSC-6.14.3. So, separate the stair enclosure from elevator shaft throughout the building.	Within 3 Months
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F-7	Fire Rated Construction	The fire pump room are not provided with adequate fire separation.	Provide fire pump room with 2 hr. rated fire separation when not sprinklered and 1 hr. rated fire separation when provided with automatic sprinklers, in accordance with NFPA 20.	Within 3 Month
				

F-8	Fire Rated Construction	Liquefied or compressed gas cylinders were located within the factory. Location: Kitchen Shed-3.	LPG/CNG cylinders are permitted to be stored in a separate dedicated building on the factory premises within its boundaries if the building meets the following conditions. 1. The storage building must be at least 3 meters away from any other building and boundaries. 2. The exterior walls of the building must have a fire resistance rating of 3 hours using noncombustible construction. 3. Doors and other openings in the exterior walls must be protected with suitable closing devices having a fire protection rating of 3 hours. 4. The building is to be used for no other purpose than the storage of LPG/CNG cylinders. 5. The building must be mechanically ventilated to control the accumulation of flammable vapors. 6. The installations must be approved and accepted by the requirements of the AHJ, Gas supply company regulations, manufacturers/supplier's instructions/guidance, CIOB and all other applicable agencies, codes and standards.	Within 3 months
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F-9	No Parapets or Guards	Parapets or guards are provided in occupied roof which is less than 1067mm (42 inch.).	Provide parapets or guards with a minimum height of 1067mm (42 inch.).	Within 3 months
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F-10	Means of Egress	Aisles are not provide with a minimum unobstructed clear with of 36 in. Location: ground floor finished goods and 1st floor.	Aisles shall be provided with a minimum unobstructed clear-with of 0.9m (36 in).	Within 1 Month
 				
F-11	Mean of Egress	Handrails are not provided on both sides of each exit stairs at ground floor of all stair. Having handrails on one side of said staircase, may pose as a falling hazard during evacuation.	Provide handrails on both sides of the exit stair. New handrails shall have a minimum height of 865 mm (34 in.) and a maximum height of 965 mm (38 in.) as measured from the leading edge of the tread. Intermediate handrails shall be provided when the stair width exceeds 2.2 m (87 in).	Within 3 Months

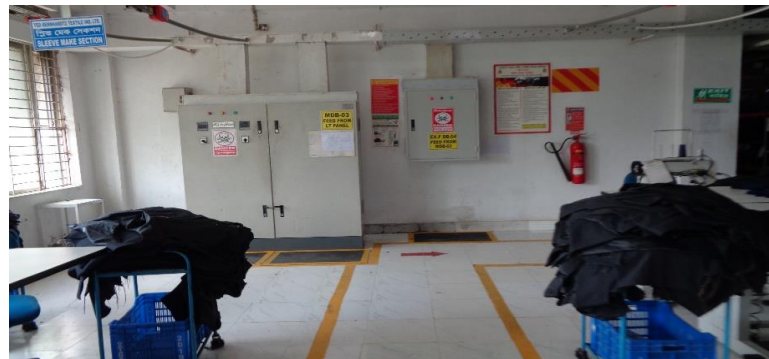


F-12	Mean of Egress	Building did not have stair designation signs at required locations.	Provide stair designation sign at each floor entrance from the stair to the floor in English and Bengali. Signs shall indicate the name of the stair and the floor level. Signs shall be posted adjacent to the door.	Within 1 Month
F-13	Mean of Egress	Building did not have occupant load signs at the required locations.	Provide stair designation signs and occupant load signs at the required locations.	Within 1 Month

F-14	Mean of Egress	Changes in elevation of walking surfaces do not exceed 6.35 mm (1/4 in) unless provided with a beveled slope of 1 in 2 that does not exceed 12.7 mm (1/2 in). Location from stair-2 and stair-3 to the public way.	Resurface the change in elevation to provide a slope that is less than 1 in 48 in.	Within 3 Months
				
F-15	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes.	Test the emergency lighting system on each floor and provide additional emergency fixtures to provide adequate illumination along the means of egress. Provide a minimum illumination of 10 lux at the floor level within exit stairs and exit discharge paths and minimum 2.5 lux along exit access aisles.	Within 1 Month



F-16	Egress Lighting	Illuminated directional signs are not provided where direction of the path of travel to an exit has changed. Location: several floor	Illuminated directional signs shall be provided where there is a change in the direction for the path of travel and the direction to an exit is not obvious.	Within 1 month
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F-17	Inspection Testing and Maintenance of Emergency lighting	Inspection, testing, and maintenance for the emergency lighting system was not in accordance with RSC technical guidelines (standard).	Inspect, test and maintain the emergency lighting system in accordance with RSC technical guidelines (standard). Keep written records on-site.	Within 1 month
F-18	Fire Alarm & Detection System (FADS)	Automatic fire alarm & detection system installation requires detailed review to confirm compliance with NFPA 72 and RSC standards.	Design & Installation of Fire Alarm & Detection system shall be in accordance with RSC standard and NFPA 72. Submit as-built design, documents and calculations to RSC for review prior installation/modification. After installation, the owner shall contact the RSC for witness of conducting the final acceptance testing of the fire detection & alarm system installation. Also inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.	Within 6 Months



F-19	Inspection Testing and Maintenance of Fire Alarm and Detection System (ITM)	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72.	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72. (After Installation)	Within 1 month after installation.
F-20	Fire Protection System (Standpipe)	The existing building has an occupied floor greater than 10 meter (33 feet) and is not provided with standpipe protection. Fire pump, water supply & standpipe system installation requires detailed review to confirm compliance with NFPA 14, 20, 22, 25 and RSC standards.	Install the standpipe system & fire department connection in accordance with NFPA 14. A class I system shall be permitted in buildings protected throughout by an automatic sprinkler system. Class-I standpipe system is acceptable with automatic sprinkler system.	Design Review within 2 months and installation within 4 months.



F-21	Fire Protection System (Sprinkler)	The high-rise building has an occupied floor greater than 23 meter (75 feet) and is not provided with automatic sprinkler protection. Location: Main Production Building.	Considering present condition minimum class-I standpipe system shall be provided along with sprinkler system for the building following NFPA-13,14,20,22 and 24. Design & installation of sprinkler system should be in accordance with RSC standard and NFPA 13,20, 22 and 24.	Design within 2 months, Install within 4 months
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F-22	Inspection, testing, and maintenance of the Fire Pump (ITM).	Inspection, testing and maintenance of the fire pump system is not in accordance with NFPA 20.	Inspect, test and maintain the fire pump system and keep written records on-site, in accordance with NFPA 25.	Within 1 month after installation.
F-23	Inspection, testing, and maintenance of the automatic sprinkler system (ITM).	Inspection, testing, and maintenance of the automatic sprinkler system is not in accordance with NFPA 25.	Inspect, test and maintain the automatic sprinkler system, and keep written records on-site, in accordance with NFPA 25.	Within 1 month after installation.

F-24	Fire Protection System(ITM of Standpipe)	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 25 and RSC Technical Guideline (Standard).	Inspect, test and maintain the standpipe system in accordance with NFPA 25 and RSC Technical Guideline (Standard) and keep written records on-site.	Within 1 Month after installation.
F-25	Inspection Testing and Maintenance of Portable Fire Extinguisher.	Inspection, testing and maintenance of portable fire extinguishers is not in accordance with NFPA 10.	Inspect, test and maintain the portable fire extinguishers and keep written records onsite, in accordance with NFPA 10.	Within 1 Month