

INITIAL FIRE SAFETY INSPECTION REPORT

Square Apparels Limited (Extension)

RSC ID: 25620

Mamarishpur, Mallikbari, Bhaluka, Mymensingh

Geographical Coordinates of factory building: 24.27937, 90.36931

Other Factories: Square Apparels Limited-ID: 24418



Inspected By: Dilip Kumar Mondal and Mohammad Hamed Mustakim

Date: 25 April-2024

Fire Safety Inspection Report

Square Apparels Limited (Extension)

Introduction:

Square Apparels Limited (Extension) Complex was surveyed for fire safety on **25 April 2024** 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):

1. Building-2 (Warehouse Building North & South Block)/G+4

Construction Date: Apr'2021 to Feb'2023

Occupied date: Feb'2023

Approval date: 31-Aug-2021

Approval Authority: LGED

Construction Period New.

Total area of the building-2: 152146 sq ft.(per floor: 30429 sft).

2. Building-3 (Administration Building)/G+3

Construction Date: Feb'2017 to Dec'2023

Occupied date: Dec'2023

Approval date: 31-Aug-2021

Approval Authority: LGED

Construction Period Interim.

Total area of the building-3: 24597 sft.(per floor: 6391 sft).

3. Building-9 (RMS Room & Gate House Building)/Single Storied

Construction Date: Feb'2023 to Dec'2023

Occupied date: Dec'2023

Area: 1721 sq ft.

4. Building-10 (Cooling Tower Building)/Single Storied

Construction Date: July'2023 to Dec'2023

Occupied date: Dec'2023

Area: 807 sq ft.

Table-1: Finding & recommendation

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	The exit stair enclosures are not separated from work areas and other spaces on each floor by fire-rated construction . Location: Admin building-3.	<p>The exit stair enclosure shall be provided with a minimum 1-hr fire resistance rating for buildings with 3 or fewer stories and a minimum of 2- hr. fire resistance rating for buildings 4 or more stories. Provide 0.75 hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated fire rated barrier construction for building with 3 or fewer stories. Provide 1.5 hr. fire rated door and seal all penetrations and openings by 2 hr. fire rated fire rated barrier construction for building with 4 or more stories.</p> <p>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.</p> <p>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.</p>	Within 3 months



F-2	Fire Rated Construction	The exit discharge path was not fire separated with storage floor on ground floor. Location: warehouse building-near loading-unloading area.	<p>Ensure that the passageway is fire rated by 2-hour including protection of unprotected opening by minimum 1.5 hour. An egress court serving as a portion of the exit discharge shall be open to the sky or provided with a fire resistance rated enclosure the same as the exit enclosure. Egress courts less than 3050 mm (10 ft) in width (as measured from the building and the adjacent property line) shall be provided with walls having a 1-hr fire resistance rated construction for a distance of 3050 mm (10 ft) above the floor of the court.</p>	Within 3 month
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F-3	Fire rated construction	<p>Unsealed penetrations and openings are located in the fire-rated floor/ceiling assemblies.</p> <p>Location: warehouse building-expansion joint-middle area, toilet area and admin building-near stair-1, all floor.</p>	<p>Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation at least by 3-hr. The used sealer shall be 3rd party certified and installation shall be as per manufacturer's guideline. (Type-1 Construction).</p>	Within 3 month
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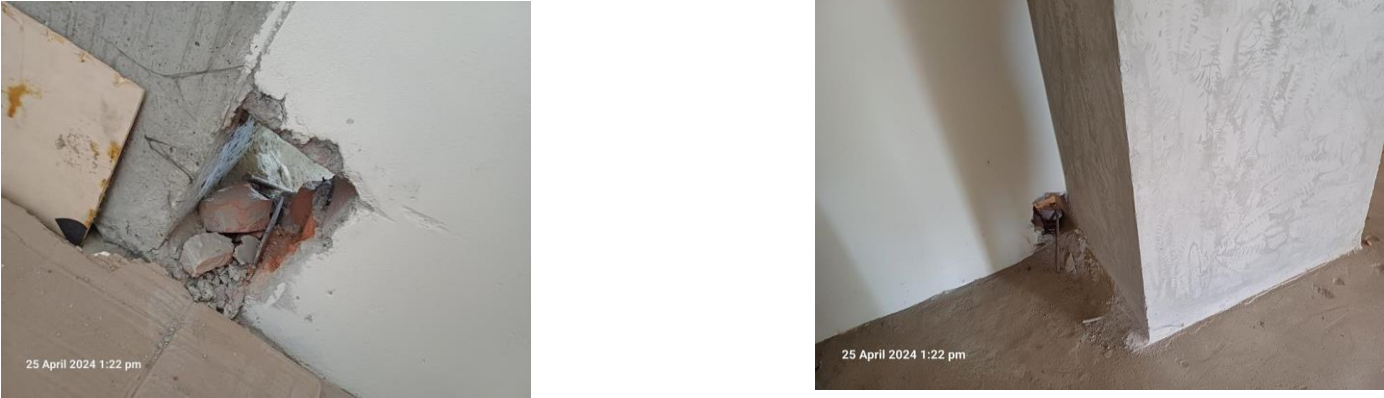


F-4	Fire rated construction	Storage room discharged directly into the exit stair enclosures in the warehouse building-2.	<p>Opening from exit enclosure to storage areas shall be provided with a vestibule with fire rated construction and openings. Provide 1.5- hr. fire rated door on the exit stair side and 1-hr fire rated door on the storage room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure, and also ensure the minimum width for vestibules shall not be less than 1.1m and length 1.8m.</p>	Within 3 months
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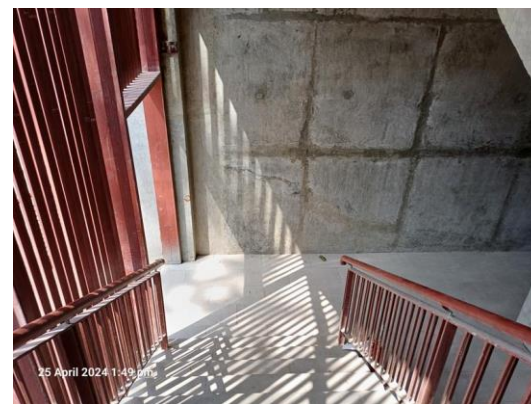
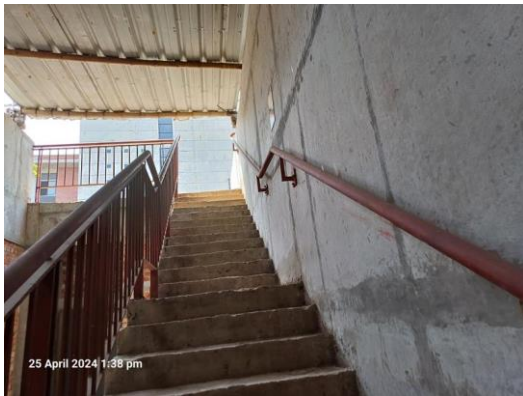
F-5	Fire Rated Construction	Elevator shafts are directly open into the production floor without proper fire separation. Location: warehouse building and admin building.	Ensure a minimum 1.5-hr fire rating for the doors of elevator shafts otherwise close the shafts area with a 2-hr fire-rated construction barrier and 1.5-hr fire-rated doors. (In new construction, elevators shall not open into an exit enclosure [RSC Building Standard 6.14.3].	Within 3 month
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F-6	Fire Rated Construction	Unsealed penetrations and openings are located in the exit stair enclosures. Location: warehouse building-stair-1 on 3rd floor.	Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separations.	Within 3 months
				
F-7	Mean of Egress	Travel distance found more than 30 m on ground floor in the storage area.	Exits shall be arranged in such a manner that the travel distance from any point in the area served shall not exceed the 30 m for Occupancy F,H, follow BNBC 2006, part 4 article :3.15.1 for storage area.	Within 3 months



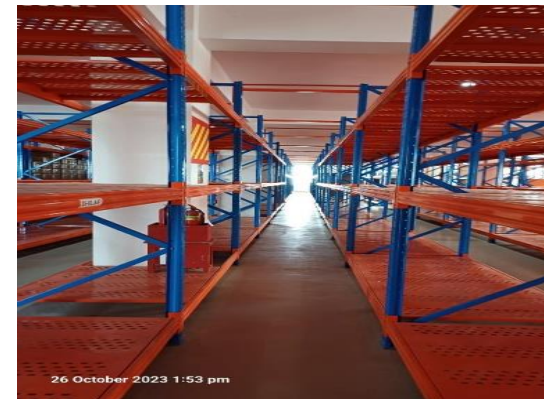
F-8	Mean of Egress	<p>Stair width was found less than 1.5m (60 inches) (Stair-01 & 02-51 inch and stair-02-34 inch for top floor.</p> <p>Location: Admin building</p>	<p>Stairs shall have a minimum clear width of 1.5 m (60 in.) for all industrial occupancies.</p>	<p>Within 3 months</p>
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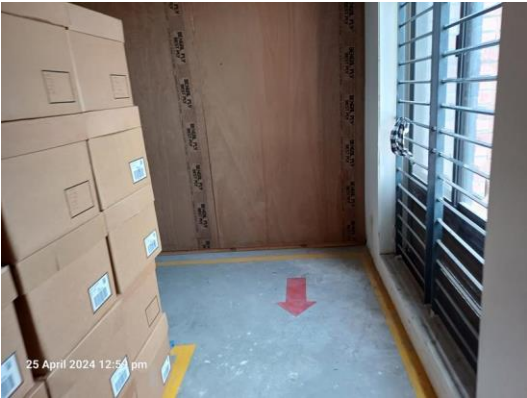



F-9	Mean of Egress	Building did not have occupant load signs at the required locations. Both building	Provide stair designation signs and occupant load signs at the required locations.	Within 1 month
				
F-10	Emergency Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes and at exit stairs. Location: Admin building-3 on all floors.	Test the emergency lighting system on each floor and provide additional emergency fixtures to supply adequate illumination along the means of egress. Provide a minimum illumination of 10 lux at the floor level within exit stairs and along exit discharge paths and a minimum 2.5 lux along exit access aisles.	Within 1 month



F-11	Egress Lighting	<p>Illuminated directional signs are not provided where direction of the path of travel to an exit has changed. Location: both building for several floor</p>	<p>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.</p>	Within 1 month
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F-12	Non-Working Exit Signs	Exit signage not illuminated (burned out, broken, etc.) . Location: warehouse building and admin building. & Exit sign not provided at exit. Location: Admin building several location	Regularly inspect all exit signage and replace/install lights as needed to illuminate signs. & Provide exit signs above all exits to the exterior and all doors to the exit stair.	Within 1 month
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F-13	Egress lighting(ITM)	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The RSC standard.	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The RSC standard. Keep written records on-site.	Within 3 months

F-14	Fire Alarm & Detection System (FADS)	Automatic fire alarm & detection system installation requires detailed review to confirm compliance with NFPA 72 and RSC standards.	<p>Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review.</p> <p>Once reviewed, install or modify the fire detection and alarm system (where required) throughout the building in accordance with RSC standard and NFPA 72. The factory management shall contact RSC to conduct the final acceptance testing after the installation, testing & commissioning.</p>	Design-1 Month, Modification if required-3 Months
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F-15	Fire Detection System (ITM of FADS)	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 Table-14.3.1 of NFPA 72.	Within 1 month after installation.
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F-16	Fire Protection System(Standpipe)	Standpipe system installation requires detailed review to confirm compliance with NFPA 14 and RSC standards.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval.	Design-1 Month, Modification if required-3 Months
				
F-17	Fire Protection System(ITM of standpipe)	Inspection, testing, and maintenance for the fire pump and standpipe system is not in accordance with NFPA 14, 20 and 25 or as per RSC standard.	Inspect, test and maintain the fire pump and standpipe system, and keep written records on-site, in accordance with NFPA 14, 20 and 25 or as per RSC standard.	Within 1 month after installation.
F-18	Fire Protection System(ITM of Extinguisher)	Inspection, testing, and maintenance of the extinguisher system is not in accordance with NFPA 10 or as per RSC standard.	Inspect, test and maintain the extinguisher system, and keep written records on-site, in accordance with NFPA 10 or as per RSC standard.	Within 1 month