

INITIAL FIRE SAFETY INSPECTION REPORT

MNR Sweaters Ltd Extension Building

RSC ID: 25126

Holdings No-467, Block-G, Ward-7, Sreepur, Gazipur, Bangladesh.

Geographical Coordinates of factory building: 24.211413155, 90.414821065

Other Factories: MNR Sweaters Ltd. ID: 12173



Inspected By: Nainin Nowrose and Muntasir Ahmad Nasif

Date: 12-February-2024

Fire Safety Inspection Report

MNR Sweaters Ltd Extension Building

Introduction:

MNR Sweaters Ltd Extension Building Complex was surveyed for fire safety on **12-February-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): There are nine (09) structures in the premises under this ID-25126. They are :

1. Factory Building: 6 storied (G+5) RCC Building

Construction: Feb 2022 to Nov 2023 & Occupied: Nov 2023

Approval Date: 09 Oct 2023

Approval Authority: Sreepur Pourashava. Gazipur.

Construction Period: New.

Total area of the Building: 328213 sft. Per Floor: 53593 sft

2. Facility Building: 4 storied (G+3) RCC Building

Construction: Feb 2023 to Dec 2023 & Occupied: Dec 2023

Approval Date: 09 Oct 2023

Approval Authority: Sreepur Pourashava. Gazipur.

Construction Period: New.

Total area of the Building: 17006 sft. Per Floor: 4251 sft

3. Utility Building: 2 storied with semi basement (B+G+1) RCC Building

Construction: Oct 2022 to Oct 2023 & Occupied: Nov 2023

Approval Date: 09 Oct 2023

Approval Authority: Sreepur Pourashava. Gazipur.

Construction Period: New.

Total area of the Building: 12669 sft. Per Floor: 5521 sft

4. Administrative Building: Single Storied RCC Building

Construction: Apr 2023 to Nov 2023 & Occupied: Dec 2023

Approval Date: 09 Oct 2023

Approval Authority: Sreepur Pourashava. Gazipur.

Construction Period: New.

Total area of the Building: 1087 sft.

5. Wastage Building: Single Storied RCC Building

Construction: Oct 2023 to Dec 2023 & Occupied: Dec 2023

Approval Date: 09 Oct 2023

Approval Authority: Sreepur Pourashava. Gazipur.

Construction Period: New.

Total area of the Building: 1603 sft.

6. Guard House-01: Single Storied RCC Building

Construction: Apr 2023 to Oct 2023 & Occupied: Nov 2023

Approval Date: 09 Oct 2023

Approval Authority: Sreepur Pourashava. Gazipur.

Construction Period: New.

Total area of the Building: 1410 sft.

7. Guard House-02: Single Storied RCC Building

Construction: Apr 2023 to Nov 2023 & Occupied: Dec 2023

Approval Date: 09 Oct 2023

Approval Authority: Sreepur Pourashava. Gazipur.

Construction Period: New.

Total area of the Building: 516 sft.

8. ETP: Single Storied RCC Building

Construction: Feb 2023 to Nov 2023 & Occupied: Not yet occupied.

Approval Date: 09 Oct 2023

Approval Authority: Sreepur Pourashava. Gazipur.

Construction Period: New.

Total area of the Building: 1679 sft.

9. Gazebo Building: Single Storied RCC Building

Construction: Oct 2023 to Dec 2023 & Occupied: Not yet occupied.

Construction Period: New.

Total area of the Building: 980 sft.

Factory Address: Holdings No-467, Block-G, Ward-7,Sreepur, Gazipur, Bangladesh.

Table-1: Finding & recommendation

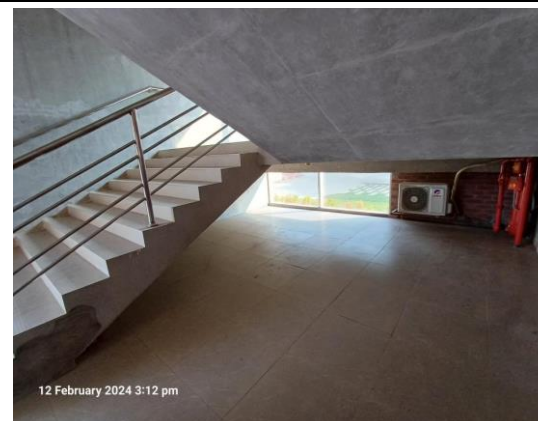
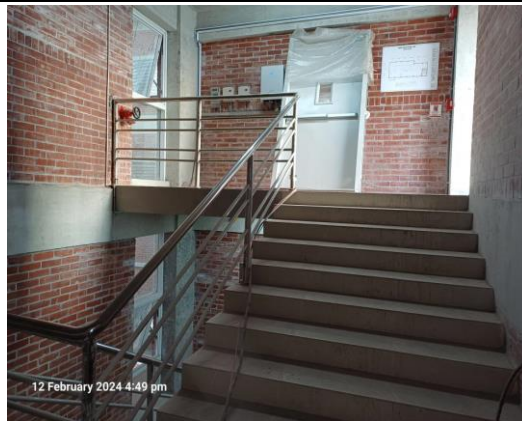
SI No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	Rooms used for storage of combustible materials discharge directly to the exit stair enclosures. Location: Factory Building: Ground, 1st floor and 5th floor Exit Stairs.	Openings from exit enclosures to storage areas, basements, transformer rooms, generator rooms, boiler rooms, and similar normally unoccupied spaces shall be provided with vestibules. Provide a 1.5 hr. fire rated door on the exit stair side and a 1- hr. fire rated door on the storage and machine room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure. Seal all penetrations and unprotected openings to maintain the rated fire separation.	Within 3 Months
 				

F-2	Fire-Rated Construction	Elevator shafts are directly open into exit enclosure at ground floor which is a violation of RSC Technical Guidelines (Standard)-6.14.3. Location: North West Exit stair of ground floor at Factory Building.	An exit stairway shall not be built around a lift shaft unless both of them are located in a smoke proof enclosure and made of a material with fire resistance rating required for the type of construction of smoke proof enclosure. (As per 6.14.3 of RSC Technical Guidelines (Standard) V1.0) Provide a minimum 2-hr fire rated shaft to separate the lift from exit stair enclosure. Or, Modify the elevator and stair enclosure arrangement in a way to satisfy RSC standard 6.14.3. Recommended to follow "SUPPLEMENTARY PAPER ON REMEDIATION GUIDANCEELEVATOR OR LIFT SHAFT OPENING IN EXIT ENCLOSURES" for remediation.	Within 3 Months
 				

F-3	Fire Rated Construction	Unsealed penetrations and openings are located throughout the fire rated floor/ceiling assemblies due to electric BBT riser and ventilation purposes. Location: Factory Building and Facility Building.	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). or, Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required (Type-1 Construction).	Within 3 Months
				
F-4	Fire Rated Construction	Catwalk has been constructed on High rack storage and the area of the intermediate deck creates a full floor where the size of the deck is more than 33% of the total floor area and requires fire rated separation. Location: Yarn store at Ground floor of Factory Building.	Remove the catwalk of the intermediate deck, or, maintain the required fire separations (3hr for type-1) between floor to floor as per BNBC 2006 Table 3.3.1. Provide required fire rating on the structural elements by following Table 3.2.4, 3.1.9 & Table-4.4.1 of the RSC Technical Guidelines Standard or Table 3.3.1 of BNBC-2006. Consult a qualified fire protection engineer to design the rated construction barriers in between two floors and in structural members. Factory shall submit all required product datasheet, installation design along with design philosophy to RSC for review prior to installation on site.	Within 6 Months



F-5	Means of Egress	Solar DB panels and AC radiator were located in the exit stair enclosure. Location: 1st Floor, Utility Building. Ground floor, Factory Building.	Remove and re-locate all electrical panels and electrical appliances from exit stair enclosures.	Within 1 month
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F-6	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-7	Egress Lighting	Illuminated Exit sign was not provided at exit on several locations.	Illuminated exit signs shall be placed at entrance to an exit. Additional directional exit signs shall be placed throughout the facility anywhere the continuation of the egress is not obvious.	Within 1 month



F-8	ITM of Emergency light and Exit Sign	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The RSC Technical standard.	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The RSC Technical standard. Keep written records on-site.	Within 1 Month after installation
F-9	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/modification, 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.	Design Review within 2 months and installation/modification within 3 months



F-10	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.
F-11	Fire Protection System(Standpipe)	The factory building has an occupied floor greater than 10 meter (33 feet) and installed a standpipe protection system which requires detailed review to confirm compliance with NFPA 14 & 20 and RSC Technical Guidelines (Standard).	Submit the proposed design of standpipe system to RSC in accordance with NFPA 14 & 20. Installation shall be as per the reviewed design with a listed Standpipe & Fire Pump System.	Design Review within 2 months and installation/modification within 3 months



F-12	Inspection, testing, and maintenance of the Fire Pump (ITM).	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 20 or as per RSC Technical Guideline (Standard).	Inspect, test and maintain the fire pump system and keep written records on-site, in accordance with NFPA 20 or as per RSC Technical Guideline (Standard).	Within 1 Month after installation.
F-13	Fire Protection System(ITM of Standpipe)	Inspection, testing, and maintenance for the standpipe system is not in accordance with NFPA 25 or as per RSC Technical Guideline (Standard).	Inspect, test and maintain the fire pump and standpipe system, and keep written records on-site, in accordance with NFPA 14 and 25 or as per RSC Technical Guideline (Standard).	Within 1 Month after installation.
F-14	Means of Egress	Building did not have occupant load signs/Stair designation signs posted at required locations.	Provide stair designation signs and occupant load signs at required locations.	Within 1 month



F-15

Means of Egress

Building did not have Emergency evacuation map posted at required locations.

Emergency evacuation maps shall be posted at the entrance to each exit stair.

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.	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
F-17	Means of Egress	Aisles marking has not been provided on floor properly.	Aisles shall be provided with a minimum unobstructed clear-width of 0.9 m (36 in.).	Within 1 Month

				
F-18	Means of Egress	Handrails are not provided on both sides of the exit stairs on several locations and no intermediate rails were provided where the stair width exceeds 2.2 m (87 in). Location: Factory building, Facility Building and Utility Building.	Provide handrails on both sides of the exit stair. Intermediate handrails shall be provided when the stair width exceeds 2.2 m (87 in). 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. Follow RSC Technical Guideline - 6.9.2.4 and RSC-6.12.1.2:	Within 3 Months
				

F-19	Means of Egress	Parapet or guardrail not provided or inadequate at required locations. Location: Facility Building.	Provide guard rails at all open sides of means of egress with a minimum height of 42 inches. Follow RSC Technical Guideline - 6.12.2	Within 1 month
				
F-20	Means of Egress	Each exit stairs serve more than 5 stories and do not have required re-entry provisions.	Every door in a stair enclosure serving more than 5 stories shall be provided with re-entry unless it meets the requirements of RSC Technical Guidelines (Standard) V1- 6.8.3.1.	Within 1 month