

INITIAL FIRE SAFETY INSPECTION REPORT

Union Sportswear Ltd. (Extension)

RSC ID: 24726

116, Pagar-Morkon Link Road, Tongi, Gazipur-1710

23.898022, 90.421169

Other Factories: Union Sportswear Ltd. [ID-9638]



Inspected By: Md. Sadid Rahman, Md. Najmul Huda and Md. Tanvir Rahman

Date: 17-Oct-2023

Fire Safety Inspection Report

Union Sportswear Ltd. (Extension)

Introduction:

Union Sportswear Ltd. (Extension) complex was surveyed for fire safety on **17-Oct-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): There are total **6 structures** in the factory compound under this RSC ID 24726. The buildings are as below:

1. B-01: New Production Building - 9 Storied RCC building.

Approved from RAJUK on 14 April 2019. Construction started-10th August, 2020 and ended-30th September, 2022. Occupied-5th December, 2022.
Total Floor area: 3,30,433 sqft (Approximately).

2. B-02: Utility Building-Two storied RCC building. [Approved for 9 storied]

Construction started-2nd June, 2021 and ended 30th January, 2023. Occupied-5th March, 2023. Total Floor area: 9,621 sft (Approximately).

3. B-03: New Pump Room- One Storied RCC building with partial basement.

Construction started-2nd January, 2022 and ended-30th September, 2022. Occupied 5th December, 2022. Total Floor area: 3,688 sft (Approximately).

4. B-04: Warehouse Shed-One Storied with mezzanine, Steel Structure.

Approved from RAJUK on 14 April 2019. Construction started-6th August, 2021 and ended-30th June, 2022. Occupied-5th October, 2022. Total Floor area: 36,603 sft (Approximately).

5. B-05: Boiler & Generator Shed - Single Storied Steel Structure.

Construction started-3rd June, 2021 and ended-30th November, 2021. Occupied-5th December, 2021. Total Floor area: 935 sft (Approximately).

6. B-06: Wastage Shed - Single Storied Steel Structure.

Construction started-5th August, 2021 and ended-30th July, 2022. Occupied-5th October, 2022. Total Floor area: 2,268 sft (Approximately).

Factory Address: 116, Pagar-Morkon Link Road, Tongi, Gazipur-1710

Findings & Recommendations :

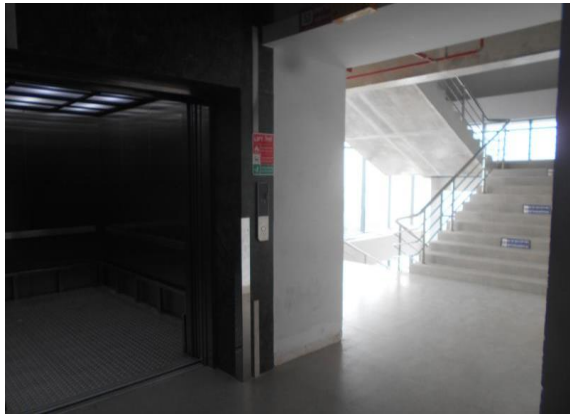
Table 1 summarize the fire safety non-compliant issues identified during the inspection. Recommendations have been provided to address each issue with specific remediation timeline. An implementation schedule shall be developed by the factory to remediate each of the findings. The specific timing of 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	<p>The exit stairs are not separated from work areas, other spaces on each floor by fire-rated construction.</p> <p>Location: B#1 New Production Building, B# 4 Ware House Shed</p>	<p>Provide minimum 2-hr fire rated construction for buildings 4 storied or more and 1-hr for up to 3 storied. Seal all unprotected openings to separate the exit stairs from work areas and other spaces on all floor levels by 90 minutes for 2 hr. construction and 60 minutes for 1-hr construction. Ensure that the fire rated doors are self-closing and positive latching and that they are provided with fire exit (panic) hardware where serving production floors. If fire rated 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	<p>Elevator shafts are directly open into the inside of exit enclosure.</p> <p>Located: B#1: New Production Building, Stair-1, 3 & 4</p>	<p>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.</p> <p>Modify the elevator shaft as per The RSC Technical Guideline (Standard) V1-6.14.3.Rearrange the facility to provide separate enclosure for lifts. If not possible anyway provide a minimum 2-hr fire- rated elevator shaft with listed fire rated lift landing door to separate from each floor level.</p>	Within 3 months
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F-3	Fire Rated Construction	<p>Storage room discharges directly into exit stair enclosure.</p> <p>Location: B#1: New Production Building ground, 4th and 8th floor of</p>	<p>Openings from exit enclosure to storage room, shall be provided with a vestibule with fire rated construction and openings.</p> <p>Provide a 1.5 hr. fire rated door on the exit stair side and a 1-hr. fire rated door on the store side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.</p>	Within 4 months
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F-4	Fire Rated Construction	<p>Penetrations through floor/ceiling assemblies are found unsealed.</p> <p>Location(s): Plumbing pipes and Electrical Riser of B#1: New Production Building</p>	<p>Seal all penetrations and openings in floor/ceiling (full thickness of the floor/ceiling) assemblies by fire rated materials to maintain the fire resistance rating. Provide a minimum 3-hr fire rated shaft to separate the utility risers from each floor if required.</p>	Within 3 months
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F-5	Fire Rated Construction	<p>The B#4: Warehouse Shed is pre fabricated steel construction. The main structural element of the buildings are constructed by steel which is appears to be nonrated and were found in exposed condition.</p>	<p>Interim building shall be type-1 or type-2 construction as per Table 3.2.4 of BNBC-2006. Provide required fire rating on the structural elements by following Section 4.4 and Table 4.4.1 of the RSC Technical Guidelines Standard or Table 3.3.1 and Table 4.1.1 from BNBC Part 4. Consult a qualified fire protection engineer to design the rated construction barriers in between two floors and in structural members.</p>	Within 6 months
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F-6	Fire Rated Construction	<p>Dinning area (Assembly Occupancy) of capacity 472 no's is provided on the mezzanine floor of warehouse shed (Storage).</p> <p>Location: B#4: Warehouse Shed</p>	<p>Provide 3 Hr. fire separation of Assembly occupancy (E3) from Storage (H2) to meet the requirement as per BNBC 2006, part III chapter 2 table 3.2.1. Seal all penetration and opening to maintain the separation.</p>	Within 3 Months
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F-7	Fire Rated Construction	<p>The generator and boiler room were not separated by fire rated construction from the warehouse shed which was about 5 feet away.</p> <p>Location: B#: Warehouse Shed & B#5: Boiler & Generator Shed</p>	<p>Separate the generator and boiler room by a minimum 2-hr fire-rated construction with warehouse shed. Seal and/or protected all openings to maintain the required fire separations.</p> <p>Or</p> <p>Relocate all to exterior of the building and maintain a minimum 3m (10 ft.) spatial separation distance from the building.</p>	Within 3 months
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F-8	Fire Rated Construction	<p>Areas used for in-process storage of combustible materials are open to the surrounding occupancy.</p> <p>Combustible materials has kept under cutting table which is non compliant.</p> <p>Location: New Production Building</p>	<p>Provide defined storage areas and limit the storage arrangement as follows: -</p> <ol style="list-style-type: none"> 1. General Condition: Maximum height of 2.4m and maximum area of 23m². Separate areas of unenclosed combustible storage by a minimum clear distance of 3m. 2. If sprinkler protected: maximum height of 3.66m and maximum area of 93m². Separate areas of unenclosed combustible storage by a minimum clear distance of 3m. <p>or</p> <ol style="list-style-type: none"> 3. Enclose the storage area from the surrounding occupancy with a minimum 1-hour construction. 	Within 3 months
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F-9	Means of Egress	Exit stair enclosures are not free from unusual unsealed penetrations and openings (Steam Pipe) Location: Stair-4 of New production building.	Penetrations into and through an exit enclosure shall be prohibited with the exception of required exit doors, sprinkler piping, standpipes, electrical raceway for fire alarm equipment, and electrical conduit serving the exit enclosure. Remove Steam Pipe/ cable raceway/busbar riser/ plumbing pipes and electrical pipes from the exit stair enclosures. Seal all penetrations and openings in the wall of exit enclosure walls (full thickness of the wall) by fire rated materials to maintain the fire resistance rating.	Within 1 month
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F-10	Means of Egress	<p>Width of new exit stair is less than 1.5 m (60 in.).</p> <p>Location: B#2: Utility Building</p>	<p>Provide minimum clear and unobstructed exit stair widths of 1.5 m(60 in.) in accordance with RSC Technical Guidelines Standard 6.5.6.2.1</p>	<p>Within 3 months</p>
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F-11	Means of Egress	<p>Aisles marking has not been provided on the floor properly.</p> <p>Location: 8th floor, B#1: New Production Building.</p>	Provide minimum aisle widths of 36-in.	Within 1 months
				
F-12	Means of egress	<p>Exit stairs serve more than 5 stories and do not have required re-entry provisions.</p> <p>Location: B#1: New Production Building.</p>	Every door in a stair enclosure serving more than 5 stories shall be provided with re-entry unless it meets RSC standard 6.8.3.1.	Within 1 month

F-13	Egress Lighting	<p>Exit signs are not provided at exit.</p> <p>Location: B#1: New Production Building, 8th floor.</p>	<p>Provide exit signs above all exits to the exterior and all doors to the exit stair.</p>	<p>Within 1 month</p>
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F-14	Egress Lighting	<p>The directional signs are not provided where there is a change in direction and where the continuation of the egress path is not obvious.</p> <p>Location: B#1: New Production Building, 8th floor.</p>	<p>Install 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>	<p>Within 1 month</p>
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F-15	Emergency Lighting	Manual on-off switch is provided for [emergency lighting / exit signage] units.	Remove manual on/off switches from emergency lighting / exit signage units to prevent them from being switched off.	Within 1 month
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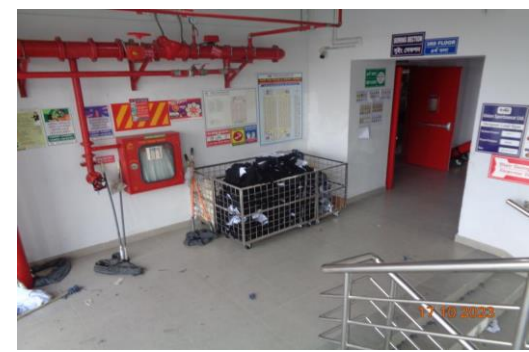


F-16	Means of Egress	<p>The emergency evacuation maps has not been updated with as built floor condition.</p> <p>Location: B#1: New Production Building, Ground Floor.</p>	<p>Fire evacuation maps shall be update and posted at the entrance to each exit stair.</p>	<p>Within 1 month</p>
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F-17	Fire Alarm & Detection system	Automatic fire alarm and detection system installation has been found complete which requires detailed review to confirm compliance with NFPA 72 and The RSC Technical Guidelines (Standard).	Submit the fire alarm system design to RSC for review. Once the design is reviewed, install and modify the fire detection and alarm system throughout the buildings in accordance with review comment, RSC Technical Guidelines (Standard) and NFPA 72. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing. Also inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	Design Review within 2 months and installation/modification within 4 months
				
F-18	Fire Alarm & Detection system (ITM of FADS)	Inspection, testing and maintenance for the fire alarm system is not in accordance with NFPA 72 and and The RSC Technical Guidelines (Standard).	Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with NFPA 72 and The RSC Technical Guidelines (Standard) and keep written records on-site	Within 1 month (after installation)

F-19	Fire Protection System (Standpipe & Sprinkler)	The factory has installed a fire Standpipe & Sprinkler system which is required to be reviewed and verified.	<p>Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval. Modification (if required) shall have to be done as per the reviewed design and NFPA- 20.</p> <p>Upon approval & modification (if required) the factory shall inform RSC to conduct final testing and commissioning verification of the system for final acceptance.</p>	Design within 1 months, installation/modification on within 3 months
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F-20	Fire Protection System (ITM of fire pump)	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 20, 25 and RSC Technical Guideline (Standard).	Inspect, test and maintain the fire pump in accordance with NFPA 20, 25 and RSC Technical Guideline (Standard) and keep written records on-site.	Within 1 Month (after installation)
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F-21	Fire Protection System(ITM of Standpipe)	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 14, 25 and RSC Technical Guideline (Standard).	Inspect, test and maintain the standpipe system in accordance with NFPA 14, 25 and RSC Technical Guideline (Standard) and keep written records on-site.	Within 1 Month (after installation)
F-22	Fire Protection System(ITM of Sprinkler)	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 and RSC standards.	Within 1 month
F-23	ITM of Fire Extinguishers	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 and The RSC Technical Guidelines (Standard).	Within 3 months
F-24	Egress Lighting ITM	Inspection, testing, and maintenance for the emergency lighting system were not in accordance with The RSC Technical Guidelines (Standard).	Inspect, test and maintain the emergency lighting system in the accordance with The RSC Technical Guidelines (Standard) and keep written records on-site.	Within 3 months