

INITIAL FIRE SAFETY INSPECTION REPORT

Rahmat Sweaters (BD) Ltd. (Extension)

RSC ID: 24588

Factory Address: Jugirchala, Mouchak, Kaliakor, Gazipur.

Geographical Coordinates of factory building: Latitude:-24.0218192.Longitude:-90.297 3012.

Other Factories: Rahmat Sweaters (BD) Ltd.(ID-10314)



Inspected By: Mohammad Anayet Hossain and Md. Jahidul Kabir

Date: 11th September 2023

Fire Safety Inspection Report

Introduction:

Rahmat Sweaters (BD) Ltd. (Extension) complex was surveyed for fire safety on **11-Sep-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:24588:

1. Sweater Building-2 : (B+G+5) Six (6) storied RCC building (June 2014 to February 2017),
Construction Period Interim.

Total area of the building : 64023.74 sft.(per floor: 8003 sft. average)

The Building (ID-24588) is structurally connected with Old ID (10314) where Ground floor, 1st floor & 5th floor marge together.

As new building is constructed which is directly connected with existing building and they are sharing process and egress. So all the building will be now consider as single fire compartment.

Factory Address: Jugirchala, Mouchak,Kaliakor,Gazipur.

General Building Information- Main Production Building-1

Number of Stories Below / Above Grade	B+G+5 (Total Height 83 feet)
Highest Occupied Floor Level / Height	5th floor/ 71 feet
High Rise (RSC Technical Guideline (Standard). 3.2.1)	Yes
Occupiable Roof (RSC Technical Guideline (Standard)- 3.2.2)	Yes
Occupiable Roof Provided with Adequate Parapets / Guards (RSC Technical Guideline (Standard)-6.12.2.4)	Yes
Occupancy Classifications	G-Industrial,F-Business,H2-Strorage

Floor Plans Available	Yes
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Date Of Construction	June 2014 to February 2017
Major Renovations / Additions	No
Comments	Design approval for factory not found. The Building (ID-24588) is structurally connected with Old ID (10314) where Ground floor, 1st floor & 5th floor merge together.

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	<p>Exit doors are provided with 2 hr. fire rated doors however fire door accessories (door coordinator, door closer, latching system, magnetic door holder) are not working as required and several fire doors were damaged and attempted to be repaired by unauthorized means (welding, drilling, painting). (Throughout the building)</p> <p>Also office room in basement & Lift machine room in top floor is not separated with stair-1(N-E). Unsealed electrical penetration also found in (S-W) stair.</p>	<p>Separate the exit stairs from work areas and other building spaces on all floor levels by minimum 2- hr. fire-rated construction. Provide minimum 1.5- hr. fire rated doors and seal all unprotected openings and penetrations to maintain the fire separation (10" wall).</p> <p>Ensure that all fire doors are self-closing and positive latching, and are provided with fire exit (panic) hardware where serving production floors or assembly occupancies.</p> <p>If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.</p> <p>Once fire doors are installed, every door in a stair enclosure serving more than 5 stories shall be provided with re-entry unless it meets RSC 6.8.3.1.</p>	Within 3 Months



F-2	Fire Rated Construction	Proper certification was not provided for fire rated doors installed in the factory.	Submit proper certifications for installed fire doors during inspection for approval. If not available , or certification is not approved , install new, properly certified fire rated doors in accordance with RSC guideline.	Within 1 Month
F-3	Fire Rated Construction	Unsealed utility pipes, electric riser penetration located in the fire-rated floor/slab/ceiling assemblies	<p>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.</p> <p>Penetrations of fire resistive rated assemblies shall be protected with listed through penetration fire stop system tested in Accordance with ASTM E814 in Accordance with RSC standard 4.7.</p>	Within 3 Months



F-4	Fire Rated Construction	Basement discharges directly into the exit stair.	<p>Openings from exit enclosure to storage room, generator, basements, transformer, boiler and similar normally unoccupied spaces shall be provided with a vestibule with fire rated construction and openings as per RSC Technical Guidelines (Standard) 6.14.3.</p> <p>Provide a 1.5 hr. fire rated door on the exit stair side and a 1-hr. fire rated door on the other side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure</p>	Within 3 Months
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F-5	Fire Rated Construction	Rooms/areas on Basement used for combustible storage are not separated by a minimum 1-hr fire-rated construction where storage area exceeding 10% of the floor area.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction	Within 3 months
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F-6	Fire-Rated Construction	<p>Areas used for combustible storage open to the factory are not properly defined and/or not within limits.</p> <p>Location: 3rd floor.</p>	<p>Provide defined storage areas and limit the storage arrangement as follows: Maximum height of 2.45m (8 ft) and maximum area of 23 m2 (250 ft2).</p> <p>If sprinkler protected: maximum height of 3.66m (12 ft) and maximum area of 93m2 (1000 ft2).</p> <p>Separate the areas of unenclosed combustible storage by a minimum clear distance of 3 m (10ft). Areas shall limit within 10% of entire floor area.</p>	Within 3 Months
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F-7	Fire-Rated Construction	The exit discharge path [serving S-E at stair-2] 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-8	Fire Rated Construction	Elevator shafts are directly open into the exit stair for stair-1(N-E).	<p>In new and interim construction, 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 RSC-6.14.3. So, separate the stair enclosure from elevator shaft throughout the building.</p> <p>There is a variety of opening protective types i.e., fire rated lift landing doors, fire doors, fire rated curtain combination for both heat & smoke control with integration with fire alarm control panel.</p>	Within 3 Months
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F-9	Fire Rated Construction	The day-care room does not meet RSC standard 3.4.2.1.1. on ground floor.	<p>Day-care shall be located on the ground floor with a maximum travel distance of 9m (30 ft)</p> <p>or</p> <p>located one story above level of exit discharge with direct access to an exit enclosure.</p> <p>If the above is not possible provide a minimum 2-hr fire rated exit corridor between the day-care room and exit stair with RSC approval.</p>	Within 3 Month
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F-10	Fire Rated Construction	Sliding doors are provided at Day Care.	<p>Sliding doors along the means of egress with side-hinged, swinging egress doors.</p> <p>If locks are required for security reasons, utilize specialized door locking features complying with NFPA101.</p>	Within 1 Month
				
F-11	Means of Egress	Width of aisle is less than 0.9m (36-in.) or not marked properly at 1st floor (Finishing section).	Aisles shall be provided with a minimum unobstructed clear-width of 0.9m (36 in).	Within 1 Month



F-12	Means 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-13	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-14	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-15	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
F-16	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-17	Fire Alarm & Detection System (FADS)	The Addressable Fire Alarm System is not available.	Submit the proposed design of Addressable fire alarm system to Accord in accordance with NFPA 72. Installation shall be as per the reviewed design with a listed Addressable Fire Alarm System.	Design Review within 2 months and installation within 4 months.
F-18	Fire Alarm & Detection System (FADS)	The building is equipped with single-station smoke alarms. Smoke alarm activation sounds only a local alarm and does not provide automatic fire alarm notification of occupant.	Remove single-station smoke alarms. Provide automatic smoke detection throughout the building, tied into the fire alarm system, in accordance with NFPA 72.	Design Review within 2 months and installation within 4 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 is required to confirm compliance with NFPA 14, 20, 22, 25 and RSC standards.	Install a new class III standpipe system & fire department connection in accordance with NFPA 14 & Install fire pump dedicated for firefighting or fire protection following NFPA 20 requirements.	Design Review within 2 months and installation within 4 months.



F-21	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-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 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
F-24	Smoking Sign	The required no smoking signs are not present in the factory.	Smoking is prohibited in any garment factory building or separate storage building. Signs shall be posted in Bengali and English at all building entrances. If the factory creates a designated smoking area outside the building, information of these areas will be posted on the signs.	Within 1 Month