

INITIAL FIRE SAFETY INSPECTION REPORT

Al-Muslim Washing Ltd. & Al-Muslim Garments Accessories Ltd (Extension)

RSC ID: 25608

14,Gedda,Karnapara,Ulail, Savar, Dhaka.

Geographical Coordinates of factory building: 23°49'39.7"N 90°15'32.0"E

Other Factories: ID-9178 AKM Knitwear Ltd

ID- 25607 A.K.M. KNIT WEAR LTD. (Extension)

ID: 24143 Al-Muslim Washing Ltd. & Al-Muslim Garments Accessories Ltd



Inspected By: Mohammad Anayet Hossain and Tanvir Jubayer Rahman

Date: 24 March-2024

Fire Safety Inspection Report

Al-Muslim Washing Ltd. & Al-Muslim Garments Accessories Ltd (Extension)

Introduction:

The **Al-Muslim Washing Ltd. & Al-Muslim Garments Accessories Ltd (Extension)** complex was surveyed for fire safety on **24 March-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) in this ID-25608:


SI No	Building Name & Description	Construction History	Period
1	ETP Building-II (Building-5) 6 storied RCC building with basement Total Approx Area: 190,580 Sft	Construction Start: February, 2019 Construction End: June, 2021 Date of first Operation: July, 2021 Building Approval: 07-Jan-2019 (Savar Paurashava)	Interim
2	Yarn Dyeing Building (Building-6) 6 storied RCC building Total Approx Area: 141,790 Sft	Construction Start: September, 2020 Construction End: January, 2024 Date of first Operation: February, 2024 Building Approval: 23-Jun-2020 (Savar Paurashava)	Interim
3	Washing Building -05 (Building-7) 2 storied RCC building with semi-basement Total Approx Area: 36,910 Sft	Construction Start: December, 2020 Construction End: March, 2021 Date of first Operation: April, 2021 Building Approval: 23-Jun-2020 (Savar Paurashava)	Interim
4	Chemical Shed (Shed-2) Single storied pre fabricated steel structure Total Approx Area: 18,940 Sft	Construction Start: April, 2022 Construction End: December, 2022 Date of first Operation: January, 2023 Building Approval: 08-Feb-2022 (Savar Paurashava)	New
5	Utility-03 (Shed-3) Single storied pre fabricated steel structure Total Approx Area: 1,888 Sft	Construction Start: November, 2022 Construction End: March, 2023 Date of first Operation: April, 2023 Building Approval: 26-Sep-2022 (Savar Paurashava)	New


Factory Address: 14,Gedda,Karnapara,Ulail, Savar, Dhaka.



Findings & Recommendations :

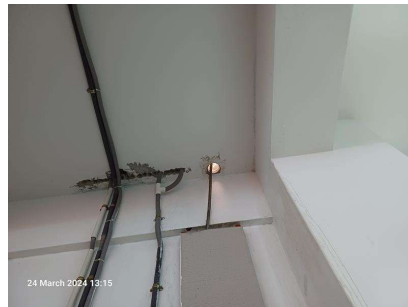
Table 1 summarizes the major fire safety issues identified during the inspection of main buildings. Recommendations have been provided to address each issue. An implementation schedule shall be developed by the factory to remediate each of the similar types of findings throughout the premises. The specific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



Table-1:

Findings & Recommendations:				
SI No.	Category	Findings	Required Action	Remediation Time Frame
F-01	Fire rated Construction	<p>Areas used for combustibile storage open to the factory are not separated by fire rated construction.</p> <p>Location: 2nd floor, 3rd floor and 5th floor of ETP Building-II (Building-5)</p> <p>3rd and 4th floor of Yarn Dyeing Building (Building-6)</p> <p>Ground floor and 1st floor of Washing Building -05 (Building-7)</p>	<p>Separate the dedicated storage rooms by minimum 1-hr fire-rated construction. Provide 0.75 hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated fire rated barrier construction.</p> <p>Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows: Where the building/floor is sprinkler protected: maximum height of 3.66m (12ft.) and maximum area of 93m2 (1000 ft2) and 3m (10ft.) clear distance from adjacent another unenclosed combustibile storage.</p>	Within 3 months
				

F-02	Means of Egress	<p>The exit stair is not separated from other occupancy due to the non-functionality of the hardware of the fire rated door. Furthermore, the gap beneath of the fire rated door has been found more than 19 mm.</p> <p>Location: ETP Building-II (Building-5), Yarn Dyeing Building (Building-6), Washing Building -05 (Building-7)</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> <p>The clearance under the bottom of a fire door shall be a maximum of 19 mm. From edges and top shall be limited to a maximum 4.8 mm. All measurement shall be taken from the ""pull side"" of the door.</p> <p>Any modification of fire doors beyond the job site preparation shall be approved by the door manufacturer.</p> <p>Install the fire door as per NFPA 80.</p>	Within 3 months
				
F-03	Fire rated Construction	<p>Storage rooms discharges directly into exit stair enclosure.</p> <p>Location: 5th floor stair-4 of ETP Building-II (Building-5)</p> <p>Both stair of 4th and 5th floor of Yarn Dyeing Building (Building-6)</p>	<p>Openings from the exit enclosure to the storage room, shall be provided with a vestibule with fire-rated construction and openings.</p> <p>Provide a 1 hr. fire rated door on the exit stair side and a 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.</p>	Within 3 months

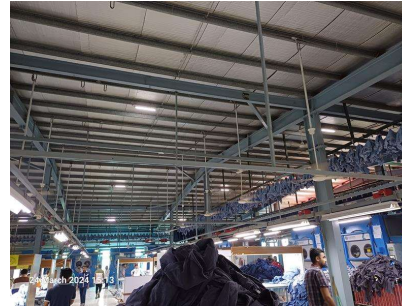
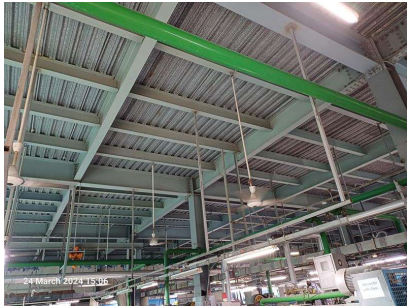
					
F-04	Fire rated Construction	<p>Unsealed penetrations and openings due to PVC plumbing pipe, utility riser and building expansion joints are located in the fire-rated floor/ceiling assemblies in many places through out the building.</p> <p>Location: ETP Building-II (Building-5), Yarn Dyeing Building (Building-6), Washing Building -05 (Building-7)</p>	<p>Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor level or seal all penetrations and openings in floors/ceiling assemblies by 3-hr fire rated listed/certified materials. The installation of such fire rated materials shall be following certified design.</p>	Within 3 months	




F-05	Fire rated Construction	<p>The dining area (E-3) is not separated from production area by fire rated construction where occupant capacity has been found 400 person as per the sitting arrangement.</p> <p>Location: 5th Floor of ETP Building-II (Building-5)</p>	<p>Occupancy Assembly E3(less than 300 person) is permitted with Occupancy Industrial Building G2.(table: 3.2.1, BNBC:2006)</p> <p>Reduce the seating arrangement less than 300 person and separate the dining area by a minimum 3-hr fire-rated construction having two direct access to exit stair or safe location. Seal and/or protected all openings to maintain the required fire separations.</p> <p>Or, Remove dining area from production building.</p>	Within 3 months
				
F-06	Fire rated Construction	<p>Unprotected elevator or lift shaft openings located at floor due to non functional hardware of the fire rated door.</p> <p>Location: ETP Building-II (Building-5), Yarn Dyeing Building (Building-6).</p>	<p>Ensure the lift shaft is enclosed by a minimum 3-hour fire-rated wall with a minimum 2.0-hr fire-rated door and the fire doors are self-closing and positive latching and that they are provided with fire exit (panic) hardware.</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>	Within 3 months

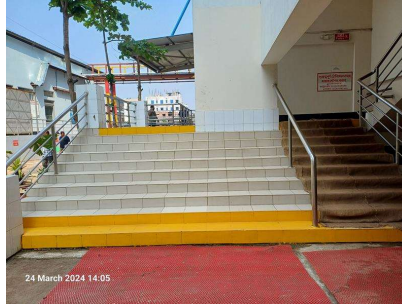


F-07	Fire rated Construction	<p>The main structural element of the building is constructed by steel which is non-rated and were found in exposed condition without any fire protection.</p> <p>Location: Washing Building -05 (Building-7)</p>	<p>The building shall be type-I or II construction. So, provide require rating in the structural elements of the building. Consult with a qualified fire protection engineer. Follow BNBC 2006-Table 3.3.1, 3.2.4 & 3.1.9.</p> <p>Factory shall ensure that, all the design, data sheet, certificate, and the design-philosophy has been reviewed from the RSC prior to install the structural fire protection system.</p>	Within 6 months
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F-08	Fire rated Construction	<p>Diesel fuel storage was located at generator room along a path of egress.</p> <p>Location: Utility-03 (Shed-3)</p>	<p>Remove all diesel fuel storage from the generator room and relocate to the exterior such that the diesel fuel storage is at least 10 ft from required egress paths. If located along egress paths or in a utility building, separate the diesel fuel storage with 2- hr fire rated construction. There shall be no diesel fuel storage in a factory production building</p>	Within 3 months
<div style="display: flex; justify-content: space-around;">   </div>				
F-09	Fire rated Construction	<p>Chemical storage shed is steel composite type and all the steel is remaining exposed.</p> <p>Location: Chemical Shed (Shed-2)</p>	<p>Chemical building shall be of Group-I construction. Provide required fire rating on the structural elements by following RSC Standard Section 3.4.2.1.10 or BNBC-2020 Part 3 Section 2.4.3 and Table 3.2.4.</p>	Within 3 months
<div style="display: flex; justify-content: space-around;">   </div>				

F-10	Means of Egress	<p>The exits in the work area on each floor of Yarn Dyeing Building (Building-6) are not remotely located from each other (less than one-half maximum diagonal distance of pace) such that a single fire event could compromise both exits.</p> <p>Location: All floor of Yarn Dyeing Building (Building-6)</p>	<p>Modify exit arrangement to meet RSC Technical Guidelines Standard V1.0 standard-6.6.6.</p> <p>Or,</p> <p>-Provide additional exit(s) to meet RSC Technical Guidelines Standard V1.0 standard-6.6.6.</p> <p>Or,</p> <p>-Provide sprinkler protection in accordance with NFPA13 to meet RSC Technical Guidelines Standard V1.0 standard-6.6.6.</p>	Within 3 months
				
F-11	Means of Egress	The width of some egress aisles found less than 36-in.	Provide minimum aisle widths of 36 inch with proper marking & update on evacuation map. All the aisles shall be free from any kind obstruction.	Within 1 month
F-12	Means of Egress	Intermediate Handrail is not provided at the ground floor exit discharge stair at the west side of the ETP building	<p>Provide handrails on both sides of the exit stair. 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.</p> <p>Intermediate handrails shall be provided when the stair width exceeds 2.2 m (87 in.).</p>	Within 1 month



F-13	Means of Egress	<p>Building did not have adequate evacuation map, stair designation signs and occupant load signs at required locations on all floors</p> <p>Location: Typical for all structure.</p>	<p>Provide Evacuation map, stair designation signs and occupant load signs at all required locations as per RSC Technical guideline.</p>	<p>Within 1 month</p>
F-14	Fire Alarm & Detection System (FADS)	<p>The fire alarm system is antiquated, not a listed system and does not provide alarm and notification features consistent with acceptable standards.</p> <p>Location: Typical for all structure.</p>	<p>Replace the fire alarm system with a new, listed addressable fire alarm system in accordance with NFPA 72.</p> <p>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 building 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.</p>	<p>Design Review within 2 months and installation within 4 months.</p>
F-15	ITM of Fire Alarm and Detection System	<p>Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72.</p>	<p>Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72. (After Installation)</p>	<p>Within 1 month after installation.</p>

F-16	Fire Suppression System (SUPS)- Standpipe System	<p>The building has an occupied floor greater than 10 meter (33 feet) where required standpipe system found under installation. Standpipe installation requires detailed review to confirm compliance with NFPA 14, 20 and RSC standards.</p> <p>Location: ETP Building-II (Building-5), Yarn Dyeing Building (Building-6).</p>	<p>Submit the standpipe system drawing to RSC for review.</p> <p>Once reviewed, install or modify the standpipe system throughout the building in accordance with RSC standard and NFPA 14, 20, 22 and 24. After installation the owner shall contact the RSC for witness of conducting the final acceptance testing of the standpipe system.</p>	Design Review within 2 months and installation within 4 months.
F-17	ITM of Standpipe system	<p>Inspection, testing and maintenance of the standpipe system is not found in accordance with NFPA 14 and 25.</p> <p>Location: Utility building-2</p>	Inspect, test and maintain the standpipe system and keep written records on-site, in accordance with NFPA 14 and 25.	Within 1 month after installation.
F-18	ITM of fire pump	<p>Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 10 and 25 or as per RSC standard.</p>	Inspect, test and maintain the fire pump, and keep written records on-site, in accordance with NFPA 20 and 25 or as per RSC standard.	Within 1 month after installation.
F-19	Emergency Lighting	<p>Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes and at exit stairs on all floors.</p> <p>Location: Typical for all structure.</p>	<p>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.</p>	Within 1 month

F-20	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-21	Inspection Testing and Maintenance of Fire extinguisher (ITM)	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