

INITIAL FIRE SAFETY INSPECTION REPORT

Mega Denim Ltd (Extension)

RSC ID: 24763

88/1, B.K Bari, Taltoli, Mirjapur, Gazipur sadar, Gazipur

Co-Ordinator: 24.120667, 90.37850

Other Factories: Mega Washing & Dyeing Ltd (ID-12640) & Mega Denim Ltd (ID-23493)



Inspected By: Md Rafat Arefin and Md. Musa

Date: 10-Sep-2023

Fire Safety Inspection Report

Factory Name: Mega Denim Ltd (Extension)
RSC ID: 24763

Introduction:

Mega Denim Ltd (Extension) complex was surveyed for fire safety on 10/09/2023 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):

1. Building-2
2. Building-3 (Hydrant Building)

Factory Address: 88/1, B.K Bari, Taltoli, Mirjapur, Gazipur sadar, Gazipur

Points of contact:

- | | |
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| <ol style="list-style-type: none">1. Name: Jashim Uddin Designation: Director Contact No: 01322818802, 01726288007 Email: jashim@megagroup.com.bd | <ol style="list-style-type: none">1. Name: Milon Hossan Designation: Asst. Manager- Utility & Maintenance Contact No: 01322818859 Email: utility@megagroup.com.bd |
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Findings & Recommendations :

Mega Denim Ltd (Extension), ID-24763

Table 1 summarizes 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 approval.

Table-1:

| SI No. | Category | Findings | Required Action | Remediation Time Frame |
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| 1 | Fire Rated construction | BUILDING-2 Rooms used for storage of combustible materials are not separated from the surrounding occupancy/areas. Location: Building-2 (Ground Floor & 2nd Floor) | Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction. | Within 3 months |
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| 2 | Fire Rated construction | Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Location:Building-2 (1st Floor) | <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 2.4 m 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. or 3. Enclose the storage area from the surrounding occupancy with a minimum 1 hour construction. | Within 3 months |
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| 3 | Fire Rated construction | Corridor(s) serving more than 30 occupants is not separated by fire rated construction. Location: Building-2 (Several floor). | <ol style="list-style-type: none"> 1. Separate the corridor by a minimum 1-hr fire rated construction. Or 2. Provide automatic sprinkler system throughout the story as per NFPA 13 | Within 3 months |
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| 4 | Means of Egress | The fire doors were found tied by unauthorized means (door wedges, door stopper) and also interfacing with the fire alarm system & door closers were not properly functional during the inspection. Location: Building-2 | Ensure that the fire doors are self-closing and positive latching. If fire doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system. | Immediately |
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| 5 | Fire Rated construction | Storage/ storage rooms from ground floor discharges directly into the exit enclosures. Location: Building-2 (Ground Floor) | <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 storeroom/storage 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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| 6 | Fire Rated construction | <p>Penetrations through floor/ceiling assemblies are found unsealed. Location: Building-2 (4th Floor)</p> | <p>Seal all penetrations and openings in floor/ceiling (full thickness of the floor/ceiling) assemblies by third-party certified fire rated materials to maintain the fire resistance rating. Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required.</p> | Within 3 months |
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| 7 | Means of Egress | Doors along means of egress are provided with non compliant locking system. Location: Building-2; Access control devices has been used on the glass door at the end of exit access corridors. | <ol style="list-style-type: none"> 1. Remove all non compliant locking features from egress doors. 2. If locks are required for security reasons, utilize special door locking features complying with NFPA 101. 3. Doors may be locked where the latch and lock are disengaged with one motion where the occupant load does not exceed 49 persons. 4. Doors may be provided with locking hardware from the ingress side provided that a panic bar is installed on any door with an occupant load exceeding 49 persons. | Immediately |
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| 8 | Fire Rated construction | Egress door serving 50 or more occupants but does not swing in the direction of egress travel. Locations: Glass door at the end of exit access corridors. | Modify swing direction of egress doors to the direction of egress travel. Doors serving an occupant load of more than 50 shall swing in the direction (out-ward) of egress travel . | Within 3 months |



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| 9 | Means of Egress | Each exit stairs serve more than 5 stories and do not have required re-entry provisions. Location: Building-2 | Every door in a stair enclosure serving more than 5 stories shall be provided with re-entry unless it meets ACCORD standard 6.8.3.1. | Within 3 months |
| 10 | Means of Egress | The egress path along means of egress has interrupted by obstruction/storage. Location: Building-2 (5th Floor) | Means of egress shall be maintained continuously free and clear of all obstructions/storage. Or Keep egress paths and stairs clear of storage. | Immediately |






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| 11 | Fire Rated construction | <p style="text-align: center;">BUILDING-3</p> <p>The exit stairs are not separated from store areas on each floor by fire-rated construction.</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 and provide vestibules to avoid direct discharge from storage to exit stair enclosure. If fire rated doors are required to be held open for functional reasons, provide automatic closing devices tied to the fire alarm system. 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 The RSC Technical Guidelines (Standard) 6.8.3.1</p> | Within 3 Months |
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| 12 | Means of Egress | <p>The egress court for westside were less than 10 ft. wide but not separated from the building interior. Location: Building-3 (West side)</p> | <p>Provide a 1.5 hr. fire rated door on the store side and 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 2-hr fire separation.</p> | Within 3 Months |
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| 13 | Means of Egress | Parapets or guards are not provide in occupiable roof. Location: Building-3 | All occupiable roofs shall be provided with parapets or guards with a minimum height of 1067 mm (42 in.) | Within 3 Months |
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| 14 | Means of Egress | A single means of exit has been provided. Location: Building-3 | <p>Ground or basement story is allowed a maximum of 50 occupants and 23 m (75ft) travel distance.</p> <p>The second story is allowed a maximum of 30 occupants and 23 m (75ft) travel distance.</p> <p>All other stories require a minimum of 2 egress exits.</p> <p>Provide additional means of egress in every floor.</p> | Within 3 Months |

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| 15 | Means of Egress | <p>Handrails are not provided throughout the exit stair. Additionally at many location intermediate rails are not provided.</p> <p>Location: Building-3</p> | <p>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.</p> <p>Handrails shall have intermediate rails or pattern such that a sphere 200 mm (8 in.) in diameter cannot pass through any opening up to a height of 865 mm (34 in.).</p> | Within 1 month |
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| 16 | Means of Egress | <p>Sliding type doors have provided along means of egress [Storage, building exits, exit discharge].</p> <p>Location: Building-3 (Ground floor, Wastage Godown)</p> | <p>Replace all collapsible/sliding/shutter type doors & gates by the side-hinged swinging type doors.</p> <p>If locks are required for security reasons, utilize special door locking features complying with NFPA 101.</p> | Within 1 Month |






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| 17 | Means of Egress | <p>Doors along means of egress are provided with non compliant locking system. Location: Exit doors of Building-3</p> | <ol style="list-style-type: none"> 1. Remove all non compliant locking features from egress doors. 2. If locks are required for security reasons, utilize special door locking features complying with NFPA 101. 3. Doors may be locked where the latch and lock are disengaged with one motion where the occupant load does not exceed 49 persons. 4. Doors may be provided with locking hardware from the ingress side provided that a panic bar is installed on any door with an occupant load exceeding 49 persons. | Immediately |
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| 18 | Means of Egress | Fire evacuation maps is not posted at the entrance of all exit stair. Location: Building-3 | Fire evacuation maps shall be posted at the entrance to each exit stair. | Within 1 month |
| 19 | Means of Egress | Building did not have stair designation signs and occupant load signs at required locations. Location: Building-3 | Provide stair designation signs and occupant load signs at required locations. | Within 1 Month |
| 20 | Egress Lighting | Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: Building-3 | 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 |
| 21 | Egress Lighting | Exit sign not provided at exit. Location: Building-2&3 | Lighted exit signs shall be placed at entrance to an exit. Additional exit signs shall be placed throughout the facility anywhere the continuation of the egress is not obvious. Lighted exit signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated. | Within 1 Month |



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| 22 | Means of Egress | Fire evacuation maps is not posted at the entrance of all exit stair. Location: Building-2&3 | Fire evacuation maps shall be posted at the entrance to each exit stair. | Within 1 month |
| 23 | Fire Alarm & Detection System (FADS) | The fire detection system installation requires detail review to confirm compliance with NFPA-72 and other applicable standard. Location: For all buildings | Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and then approval/acceptance test. | Drawing review within 2 months and Install/modification within 6 months. |

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| 24 | Fire Suppression System (SUPS) | <p>Standpipe system and fire pump installation requires to detailed review to confirm compliance with NFPA 14, 20, 22, 24 and RSC standard.</p> <p>Location: For all buildings</p> | <p>Submit the standpipe system drawing to RSC for review. Once reviewed, install or modify the standpipe system throughout the building in accordance with RSC standard, NFPA 14 and 20. The factory management shall contact RSC to conduct the final acceptance testing after the installation, testing & commissioning</p> | <p>Review within 2 months and Install within 6 months</p> |
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| 25 | Fire Alarm & Detection System (FADS) | <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 and RSC standards.</p> | <p>Within 1 Month After Installation</p> |

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| 26 | Fire Suppression System (SUPS) | 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 on- site, in accordance with NFPA 10 and RSC standards. | Within 1 Month |
| 27 | Fire Suppression System (SUPS) | 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 20 and RSC standards. | Within 1 Month After Installation |
| 28 | Fire Suppression System (SUPS) | Inspection, testing and maintenance of the standpipe system is not in accordance with NFPA 14. | Inspect, test and maintain the standpipe system and keep written records on-site, in accordance with NFPA 14 and RSC standards. | Within 1 Month After Installation |
| 29 | Egress Lighting | 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 1 Month |