

INITIAL FIRE SAFETY INSPECTION REPORT

Square Denims Limited (Garments Unit) (Extension).

RSC ID: 25931

Geographical Coordinates: 24.29508586956745, 90.37406818196789

Address: Dubalipara, Zamirdia, Habirbari, Bhaluka, Mymensingh

Other Factories: Square Denims Limited (Garments Unit) [RSC ID: 24263]



Inspected By: Mohammad Anayet Hossain & Hamed Mustakim

Date: 26-December-2024

Fire Safety Inspection Report

Square Denims Limited (Garments Unit) (Extension)

Introduction:

RSC ID : 25931

Square Denims Limited (Garments Unit) (Extension). complex was surveyed for fire safety on **26-Dec-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

There are total 4 structures covered under this RSC ID 25931. Among these one structure is for production and other three structures are ancillary. The buildings are as below:

SL No	Building Name	Building Construction Period	Approval Date & Authority	Occupied	Structure type	Construction Category
1	Building 3 (Washing Building)	Jan-2021 to Jul-2022	Approved from LGED (27-Mar-2023)	Mar-2023	RC (G+M+4)	Interim
2	Effluent Treatment Plant (ETP)	Mar-2021 to Dec-2022		Mar-2023	RC(G+1)	New
3	Process Water Tank	Jan-2021 to Jul-2022		Mar-2023	RC (B+G)	Interim
4	RMS	Jul-2023 to Dec-2023		Oct-2024	RC (G)	New

Factory Address: Dubalipara, Zamirdia, Habirbari, Bhaluka, Mymensingh

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: All structures under this ID

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-01	Fire Rated Construction	<p>Areas used for in-process storage of combustible materials are open to the production area.</p> <p>Location: 3rd floor at Building-3 (Washing 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 2.4 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





F-02	Fire Rated Construction	<p>Liquefied or compressed gas cylinders were located within the factory premises without required fire rated separation.</p> <p>Location: North side of Building-3 (Washing Building). [West side of Building-4 (Utility Building)]</p>	<p>LPG/CNG cylinders are permitted to be stored in a separate dedicated building on the factory premises within its boundaries if the building meets the following conditions:</p> <ol style="list-style-type: none"> 1. The storage building must be at least 3 meters away from any other building and boundaries. 2. The exterior walls of the building must have a fire resistance rating of 3 hours using noncombustible construction. 3. Doors and other openings in the exterior walls must be protected with suitable closing devices having a fire protection rating of 3 hours. 4. The building is to be used for no other purpose than the storage of LPG/CNG cylinders. 5. The building must be mechanically ventilated to control the accumulation of flammable vapors. 6. The installations must be approved and accepted by the requirements of the AHJ, Gas supply company regulations, manufacturers/supplier's instructions/guidance, Chief Inspector of Boiler (CIOB) and Chief Inspector of Explosives Bangladesh (CIEB). 	Within 2 months
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F-03	Fire Rated Construction	<p>Rooms used for storage of combustable materials were not separated from the Office area at 4th floor.</p> <p>Location: 4th floor Building-3 (Washing Building)</p>	<p>Rooms used for storage of combustable materials shall be separated from the surrounding occupancy with a minimum 1-hour fire rated construction.</p>	Within 3 months
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F-04	Fire Rated Construction	<p>Elevator located along the exit access path to exit stair-1 is not fire separated due to not provided with opening protection.</p> <p>Location: Ground floor at Building-3 (Washing Building).</p>	<p>Elevator shaft shall be separated from exit access path by 2 hours fire rated construction. 2-hr fire barriers shall be protected with minimum 1.5-hr fire protective opening assemblies.</p>	<p>Within 3 months</p>
				
F-05	Fire Rated Construction	<p>Elevator shafts were separated from production floor by fire rated doors on each floor near Stair-1 at Building-3 (Washing Building). The datasheets & certificates of installed fire-rated doors will be verified during the next inspection.</p>	<p>Submit proper certifications for installed fire doors to the RSC for approval. If not available, or certification is not approved, install new, properly certified fire rated doors in accordance with RSC direction.</p>	<p>Within 2 months</p>

F-06	Fire Rated Construction	Unsealed penetrations are located in the fire rated floor/ceiling assemblies due to electrical riser (BBT) and plumbing pipe at several location on each floor of Building 3 (Washing Building).	<p>Seal all penetrations and openings in floor/ceiling assemblies by a listed through-penetration fire stop system tested in accordance with ASTM E814 or approved alternative standard to maintain minimum 3-hr. fire resistance rating. Installation shall be as per manufacturer published installation guideline and the certification authority guideline to ensure the fire-rating.</p> <p>or,</p> <p>Provide a minimum 2-hr fire rated shaft to separate the penetration from each floor if required.</p>	Within 3 months
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F-07	Means of Egress	<p>The factory has installed fire rated doors for exit stair separation on all floors for all stairs. The datasheets & certificates of installed fire-rated doors will be verified during the next inspection.</p> <p>Location: Building-3 (Washing Building).</p>	<p>Submit proper certifications for installed fire doors to the RSC for approval. If not available, or certification is not approved, install new, properly certified fire rated doors in accordance with RSC direction.</p>	<p>Within 2 months</p>
				

F-08	Means of Egress	Storage room/areas discharges directly into the exit stair enclosure is not provided with vestibule on 4th floor, Building-3 (Washing Building).	Openings from exit enclosure to storage room, generator and transformer spaces shall be provided with a vestibule with fire rated construction and openings. Provide a 1.5 hr. fire rated door on the exit stair side and a 1-hr. fire rated door on the Store, generator, sub-station room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure as per RSC standard 6.14.3.	Within 3 months
<div style="display: flex; justify-content: space-around;">   </div>				
F-09	Means of Egress	Directional signs are not provided where direction of the path of travel to an exit has changed at several location. Location: Building-3 (Washing Building).	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 3 months

F-10	Means of Egress	Exit sign found inadequate at several exit location. Location: Building-3 (Washing Building).	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 3 Months
F-11	Means of Egress	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: Each floors.	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.	Within 1 month
F-12	Means of Egress	Building did not have occupant load signs at required locations.	Post the occupant load for every assembly and production floor in a facility in a conspicuous space near the main exit or exit access doorway for the space.	Within 1 month
F-13	Means 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	Means of Egress	Updated fire evacuation map was not posted at the entrance of all exit stair.	Fire evacuation maps shall be posted at the entrance to each exit stair. Evacuation map shall reflect the actual floor condition.	Within 1 month

F-15	Inspection, Testing & Maintenance (Fire)	Inspection, testing, and maintenance for the exit sign and emergency lighting system were not in accordance with the RSC Technical Guidelines (Standard).	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The RSC Technical Guidelines (Standard) and keep written records on-site.	Within 1 month
F-16	Fire Alarm & Detection System (FADS)	<p>The factory has installed a fire alarm and detection system that requires a detailed review to confirm compliance with NFPA 72 and RSC Technical Guidelines (Standard).</p> <p>Locations: All Building.</p>	<p>Submit proposed the fire alarm system design to RSC for review. Once the design is reviewed, install the fire detection and alarm system throughout the buildings in accordance with review comment, RSC Technical Guidelines (Standard) and NFPA 72.</p> <p>After installation the factory 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.</p>	Design Review within 2 months and installation/modification within 4 months.



F-17	Inspection, Testing & Maintenance (Fire)	Inspection, testing and maintenance for the fire alarm system is not in accordance with NFPA 72 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-18	Fire Suppression System (SUPS)	Fire protection System (Standpipe) installed and requires detailed review to confirm compliance with NFPA 13, 14, 20, 22, 24 & RSC Technical Guidelines (Standard)	<p>Submit the Standpipe and Fire Pump System drawing and documents to RSC for review. Once reviewed, install or modify the Automatic Sprinkler System throughout the building in accordance with RSC Technical Guideline (Standard) and NFPA 13, 14, 20, 22 and 24.</p> <p>After installation, the factory shall contact the RSC for witness of conducting the final acceptance testing of the SUPS (Sprinkler with standpipe) system.</p>	Design Review within 2 months and installation/modification within 4 months.



F-19	Inspection, Testing & Maintenance (Fire)	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)
F-20	Inspection, Testing & Maintenance (Fire)	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-21	Inspection, Testing & Maintenance (Fire)	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 RSC Technical Guidelines (Standard).	Within 1 month