

# INITIAL FIRE SAFETY INSPECTION REPORT

**Shanta Denims Limited (Extension)**

**RSC ID: 25929**

**Geographical Coordinates: 23.943903, 90.279246**

**Address: Plot#156 And 177, Depz, Ganakbari, Savar**

Other Factories: 10180



**Inspected By: Md. Hasibur Rahman Abir & Hamed Mustakim**

**Date: 17-December-2024**

# Fire Safety Inspection Report

## Shanta Denims Limited (Extension)

### Introduction:

RSC ID : 25929

**Shanta Denims Limited (Extension)** complex was surveyed for fire safety on **17-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 6 structures covered under this RSC ID 25929. Among these one structure is for production and other five structures are ancillary. The buildings are as below:



SL No	Building Name	Building Construction Period	Approval Date & Authority	Occupied	Structure type	Construction Category
1	New Production Building (Building-6)	April-2023 to -Aug-2024	Approved from BEPZA DHAKA on 11-April-2023	Sep-2024	RCC (G+5)	New
2	Fire Pump Room-2 (Building-7)	Mar-2024 to Aug-2024		Dec-2024	RCC	New
3	Boiler Room (Building-8)	Mar-2024 to Aug-2024		Sep-2024	RCC	New
4	Utility Building-2 (Building-9)	Mar-2024 to Aug-2024		Sep-2024	RCC	New
5	Security Shed-2 (Building-10)	Sep-2024 to Oct-2024		Nov-2024	Brick Wall with Steel Roof	New
6	RMS Room (Building-11)	Oct-2024 to Nov-2024		Nov-2024	RCC	New


**Factory Address: Plot#156 And 177, Depz, Ganakbari, Savar**


## 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>Rooms used for storage of combustible materials are not separated from the surrounding packing section.</p> <p>Location: 3rd Floor of New Production Building (Building-6)</p>	<p>Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction.</p>	Within 3 months
<div style="display: flex; justify-content: space-around;">   </div>				

F-02	Fire Rated Construction	<p>Storages are found underneath the cutting table.</p> <p>Location: 1st floor of New Production Building (Building-6)</p>	<p>Storage underneath the cutting tables shall be kept clear of combustibles at all time, except as provided for miscellaneous storage in accordance with 3.4.2.1.6 or where automatic sprinkler protection is installed.</p> <p>Where an automatic sprinkler system is installed sprinklers are required to be installed beneath cutting tables greater than 4 ft in width that are used for storage of combustibles.</p>	Within 3 months
<div style="display: flex; justify-content: space-around;">   </div>				

F-03	Fire Rated Construction	<p>Elevator shafts are directly open into stair enclosure without proper fire separation.</p> <p>Location: East and South-West stair of New Production Building (Building-6).</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>Factory is recommended to follow RSC published "SUPPLEMENTARY PAPER ON REMEDIATION GUIDANCE ELEVATOR OR LIFT SHAFT OPENING IN EXIT ENCLOSURES" for different solutions.</p>	Within 3 months
				

F-04	Fire Rated Construction	Unsealed penetrations are located in the fire rated floor/ceiling assemblies due to electrical riser (BBT) and plumbing pipe on each floor several locations of New Production Building (Building-6).	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.  or,  Provide a minimum 2-hr fire rated shaft to separate the penetration from each floor if required.	Within 3 months
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F-05	Fire Rated Construction	Fire Resistance Ratings of Exterior Walls do not maintaining considering the Fire Separation Distance. Location: Building-6	All new buildings and structures shall be separated from other buildings in accordance with BNBC 2020 Part 3 Table 3.2.2 & 3.2.3 and BNBC 2020 Part 3 Section 2.4.1.3.	Within 3 months
				

F-06	Fire Rated Construction	Unprotected openings in the exterior wall were observed on two consecutive floors, located within 1.5 meters either laterally or vertically, without proper separation.	Unprotected openings in the exterior wall in two consecutive floors lying within 1.5 m laterally or vertically shall be separated with flame barriers as similar as sunshades or cornices or projected wall at least 750 mm from the external face of the exterior wall. The flame barrier shall have a fire resistance rating of not less than three-fourths hour as per BNBC 2020, section: 3.1.9.2	Within 3 months
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F-07	Fire Rated Construction	The fire pump room is not provided with adequate fire separation.	Provide fire pump room with 2 hr. rated fire separation when not sprinklered and 1 hr. rated fire separation when provided with automatic sprinklers in accordance with NFPA 20. Or, Physically separate the pump room from the protected building by a minimum of 50 ft. (15.3 m) in accordance with NFPA 20	Within 3 months
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F-08	Fire Rated Construction	Flammable liquid (diesel tank) exceeding the exempted amount (16,000 liters observed during the inspection) was found without the required fire separation distance and exterior wall rating, as per BNBC 2020 requirements.	The diesel tank shall be separated from other buildings in accordance with BNBC 2020 Part 3 Table 3.2.2 and BNBC 2020 Part 3 Section 2.4.1.3.	Within 3 months
				
F-9	Means of Egress	Exit stairs serve more than 5 stories and do not have required reentry provisions on all floors.	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 3 months

F-10	Means of Egress	<p>The exit stair enclosures are not properly separated from work areas and other spaces on each floor due to partially non-functional fire doors and unprotected opening from lift machine room of New Production Building (Building-6).</p>	<p>The exit stair enclosure shall be provided with a minimum 2-hr fire resistance rating for buildings with 4 or more stories. Provide 1.5 hr. fire rated door and seal all penetrations and openings by 2hr. fire rated fire rated barrier construction for building with 4 or more stories (vestibules to separate any storage areas).</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>	Within 3 months
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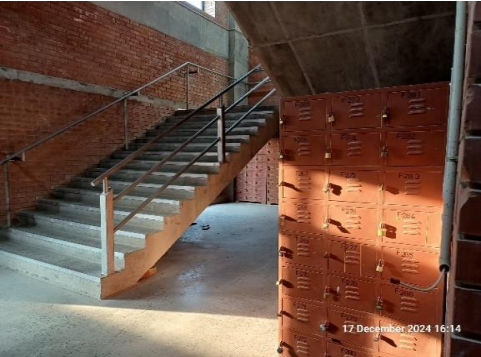


F-11	Means of Egress	The guards below the handrails have gaps large enough for a sphere 200 mm (8 in.) in diameter to pass through.	Open guards shall have intermediate rails or pattern such that a sphere 200 mm (8 in.) in diameter cannot pass through any opening up to a height of 865 mm (34 in.).	Within 3 months
<div style="display: flex; justify-content: space-around;">   </div>				

F-12	Means of Egress	Intermediate Handrails were not provided on the South-West exit stairs which width is 94 inch.	Provide handrails on both sides of the exit stair. 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. Intermediate handrails shall be provided when the stair width exceeds 2.2 m (87 in.).	Within 3 months
				
F-13	Means of Egress	Doors in a means of egress have a minimum width less than 39 in. (36inch observed). Location: Packing Section at 3rd floor.	Doors in a means of egress shall have a minimum width of 1 m (39 in.).	Within 3 months

F-14	Means of Egress	A single means of exit has been provided. Location: packing section at 3rd floor	The number of means of egress from any floor, story or portion thereof shall not be less than 2 except where a single exit is permitted by RSC Technical Guidelines (Standard)1 V1.0 6.6.2, or 6.6.5.	Within 3 months
				
F-15	Means of Egress	Directional signs are not provided where direction of the path of travel to an exit has changed. Location: New Production Building (Building-6)	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	Means of Egress	Exit sign not provided at exit. Location: 5th Floor.	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
F-17	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 3 months
F-18	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-19	Means of Egress	Building did not have stair designation signs and occupant load 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-20	Means of Egress	Updated Fire evacuation map is not posted and updated 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-21	Means of Egress	Locker facility was found in the exit stair. Location: Ground floor	Remove all locker and storage from exit stairs.	Within 1 month
				
F-22	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-23	Fire Alarm & Detection System (FADS)	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>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.
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F-24	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-25	Fire Suppression System (SUPS)	<p>The highest occupied floor of New Production Building (Building-6) was found more than 75 ft (23 m) and the installation of an automatic fire sprinkler system throughout the building is ongoing during the inspection.</p> <p>The sprinkler and standpipe system installation requires detailed review to confirm compliance with NFPA 13, 14, 20, 22, 24 &amp; RSC Technical Guidelines (Standard).</p>	<p>Submit the Automatic Sprinkler, 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-26	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-27	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-28	Inspection, Testing & Maintenance (Fire)	Inspection, testing, and maintenance for the Sprinkler system is not in accordance with NFPA 13, 25 and RSC Technical Guideline (Standard).	Inspect, test and maintain the Sprinkler system in accordance with NFPA 13, 25 and RSC Technical Guideline (Standard) and keep written records on-site.	Within 1 month (after installation)
F-29	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