

INITIAL FIRE SAFETY INSPECTION REPORT

Tropical Knitex Ltd (Extension)

RSC ID: 24581

Chandra, Kaliakoir, 1751, Gazipur

Geographical Coordinates of factory building: N/A

Other Factories: Tropical Knitex Ltd (ID:23816) in the premises



Inspected By: Ahammad Kabir & Shahina Imam

Date: 24 September 2023

Findings & Recommendations :

Tropical Knitex Ltd (Extension)

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	The exit stairs are not separated from [work areas, other spaces] on each floor by fire-rated construction. Location: Building 1, building 12 and building 21	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 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 RSC Technical Guidelines (Standard) 6.8.3.1 If fire doors are required to be held open for functional reasons, provide automatic-closing devices tied to the fire alarm system.	Within 3 Months
				

F-2	Fire Rated Construction	Unsealed penetrations and openings are located in the fire rated floor/ceiling assemblies. Followings are the description of openings or penetrations indicating specific. Locations: Building-1 & Building-12	Seal all penetrations and openings in floor/ceiling (full thickness of the floor/ceiling) assemblies by fire rated materials to maintain the fire resistance rating of 3 hours. Or Provide a minimum 2 hour fire rated shaft to separate the utility risers from each floor if required.	Within 3 Months
 				
F-3	Fire Rated Construction	Storage room discharges directly into the exit stair discharge. Location: Building-1 & Building-12	Openings from exit enclosure to storage room, generator and hazard 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, substation room side. Ensure that the fire rating of the vestibule construction matches that of the exit stair enclosure.	Within 3 Months



F-4	Fire Rated Construction	Rooms used for storage of combustible materials are not separated from the other occupancies Location: Building-12 (1st Floor fabric store) Building-1 (7th, 6th, 5th, 4th, 3rd, 1st and ground floor)	Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction. Store rooms directly discharge in exit stair enclosure shall be separated in accordance with the RSC Technical Guidelines (Standard) Section 6.14.3	Within 3 Months
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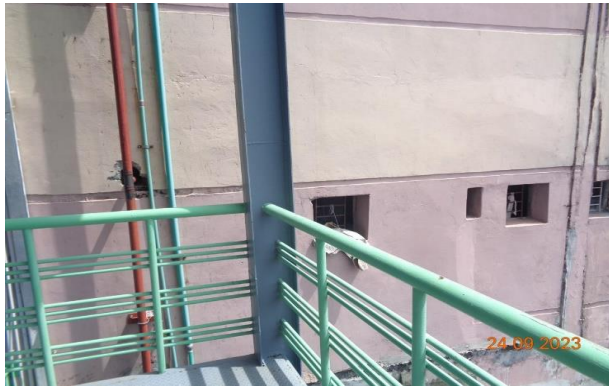
F-5	Fire Rated Construction	Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Location: Building-12 (4th Floor Knitting and 3rd Floor Packing Area)	Provide defined storage areas and limit the storage arrangement as follows:- 1. General Condition: Maximum height of 2.4m 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-6	Fire Rated Construction	Elevator shafts are directly open into Exit Enclosure. Location: Building-12	For interim construction,, elevators shall not open into an exit enclosure as per RSC-6.14.3. So, separate the stair enclosure from elevator shaft throughout the building.	Within 3 Months



F-7	Fire Rated Construction	Elevator shafts are directly open inside the floor through installed fire door. Location: Building-1	Ensure minimum 1.5-hr fire rating for the doors of elevator shafts otherwise close the shafts area with 2-hr fire rated construction barrier and 1.5-hr fire rated doors.	Within 3 Months
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F-8	Fire Rated Construction	Sub-station are not properly separated by fire rated construction (openings, non-rated doors, penetrations). Location: Ground floor of Building-1	Separate the Substation room by a minimum 2-hr fire rated constructions. Seal and/or protect all opening to maintain the required fire separation. Provide proper ventilation system with consult a qualified engineer.	Within 3 Months
				
F-9	Fire Rated Construction	The Exit discharge path is less than 10 ft wide and is not separated from the building interior. Location: Building-1	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.	Within 3 Months



F-10	Means of Egress	Headroom in the passageway of the stair-2 of Building-1 measured less than 6 ft 8 inch.	Ensure minimum headroom 6ft 8 inch or re-route the egress way to avoid the critical path.	Winthin 3 Months
				

F-11	Means of Egress	Building did not have stair & floor designation signs at required locations.	Provide stair & floor 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-12	Means of egress	Electrical cable tray / channels are located in exit stair enclosure.	Penetration is prohibited into and through an exit enclosure. Re-route the cable raceway to comply RSC 6.14.4. Seal all penetrations and openings in exit stair enclosure walls to maintain the required fire separation.	Within 3 months
				
F-13	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 technical guideline (standard) 6.8.3.1.	Within 1 Month
F-14	Means of Egress	Electrical DB panel has been found in the exit stair. Location: Building 12	Remove the electrical DB panel from exit stair to a safe location. Also remove storage items from the exit stairs and egress paths.	Within 3 months



F-15	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes on all 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-16	ITM of Emergency light and Exit Sign	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The RSC Technical standard.	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The RSC Technical standard. Keep written records on-site.	Within 1 Month after installation
F-17	Egress Lighting	Exit signs were provided on both side of exit.	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.	Within 1 Month
F-18	Egress Lighting	Illuminated directional signs are not provided where direction of the path of travel to an exit has changed.	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-19	Fire Alarm and Detection System (FADS)	Fire alarm & detection system installation requires detailed review to confirm compliance with NFPA 72 and RSC Technical Guidelines (Standards).	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval; modification (if required) shall have to done as per the reviewed design and standard.	Design Review within 2 months and installation within 4 months.



F-20	Inspection, Testing and Maintenance of FADS.	Inspection, testing and maintenance for the fire detection and alarm system was not in accordance with standard. Location: Building-12, Building-1	Inspect, test and maintain the fire alarm system and keep written records on-site, in accordance with Table-14.3.1 of NFPA 72.	Within 1 Month (after installation)
F-21	Fire Protection System(Standpipe)	Standpipe system installation requires detailed review to confirm compliance with NFPA 14 and RSC standards.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review and approval.	Within 6 Months



F-22	Fire Protection System(Sprinkler System)	Based on the height of the highest occupiable floor of the building 1, sprinkler system is not required, but the factory installed it as an additional measures. It is required to ensure compliant as per NFPA-13. Proposed design of Automatic Sprinkler System was not reviewed by the RSC.	Submit the sprinkler system drawing to RSC for review. Once the design is reviewed, install and modify (if required) the sprinkler system throughout the building in accordance with review comment, RSC Standard and NFPA 13, 20, 22 and 24. After installation the owner shall conduct internal testing and commissioning and then contact the RSC for witness of final acceptance testing.	Design Review within 2 months and modification within 4 months (If required).
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F-23	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 or modification
F-24	Fire Protection System(ITM of fire pump)	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 25 and RSC Technical Guideline (Standard).	Inspect, test and maintain the fire pump in accordance with NFPA 25 and RSC Technical Guideline (Standard) and keep written records on-site.	Within 1 Month after installation or modification
F-25	ITM of Fire Extinguishers	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 The RSC Technical Guidelines (Standard).	Within 1 Month

F-26	Fire Protection System(ITM of sprinkler)	Inspection, testing and maintenance of the automatic sprinkler system is not in accordance with NFPA 25.	Inspect, test and maintain the automatic sprinkler system and keep written records on- site, in accordance with NFPA 25 and RSC Technical Standard.	Within 1 Month after installation or modification
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