

INITIAL FIRE SAFETY INSPECTION REPORT

KNITEX DRESSES LTD.

RSC ID: 12075

Sultan Market, Sharodagonj, Kashimpur, Gazipur



Inspected By: Pantha Pallob Das & Md. Khalaquzzaman

Date: 5 December 2021

Introduction:

Knitex Dresses Limited was surveyed for fire safety on 5 December 2021 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

Building name(s):

1. Building no:01, AOP Production building
2. Building no:02, Utility building
3. Building no:03, AOP steel shed
4. Building no:04, Garments production building
5. Building no:05, Fire pump room
6. Building no:06, Wastage Godown
5. Building no:07, ETP
6. Building no:08, Security & Fire control room

Table 1-3 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 No.	Building	Total Finding	Finding Range	Remarks
Table 1	Building-1	16	F-1 to F-16	
Table 2	Building-4	14	F-17 to F-30	
Table 3	Building-3 & 5	3	F-31 to F-35	

Table-1: Building no: 01, AOP Production building

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-1	Fire Rated Construction	Rooms used for storage of combustible materials are not separated from the surrounding Location: Building 1, 3rd floor	Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction.	Within 3 months
 				

F-2	Fire Rated Construction	Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Located: Building 1, 2nd Floor	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Or, Where separate storage rooms are not feasible, 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.	Within 3 month
 				

F-3	Fire Rated Construction	Chemical storage area is not properly separated by fire-rated construction with other process. Location: Building-1 (1st, 2nd and 5th floor)	Separate the chemical storage room by minimum 4-hr fire rated construction. Seal all penetrations and protect the openings to maintain the required fire separations. Keep 16-points SDS of all chemicals in the storage area. ** As per BNBC, chemical storage room shall be Type-1 construction. Follow section-2.13 and Table 3.2.1 of BNBC-2006 for the guideline.	Within 3 months
 				
F-4	Fire Rated Construction	Chemical Storage discharged directly into the exit stair enclosures. Location: Building-1 (1st, 2nd and 5th floor)	Provide vestibule in-between chemical store and stair enclosure with fire rating for minimum 3-hr or ensure maximum exempt quantity of hazardous materials/chemical following table 3.2.7 of BNBC 2006 and clause 2.13 with 2-hr fire rated stair enclosure.	Within 3 month

 				
F-5	Fire Rated Construction	Elevator shafts are directly open into exit enclosure which is a violation of ACCORD Standard-6.14.3. Location: Building 01 (Stair 1 & 5).	For new construction, elevators shall not open into an exit enclosure as per ACCORD-6.14.3. So, provide separate enclosures for elevator and stair.	Within 3 months

				
F-6	Fire Rated Construction	Mezzanine floors are defined as main floor as the area exceeds 1/3rd of main floor area, where no floor to floor fire separation was provided for 1st, 3rd and 5th floors. Building-1	Provide minimum 3-hr floor to floor fire separation on every floors following table 3.3.1 of BNBC-2006.	Within 3 Months

				
F-7	Fire Rated Construction	Penetrations through floor/ceiling assemblies are found unsealed. Location: Building-1 (All Floor)	Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation at least by 3-hr. The used sealer shall be 3rd party certified and installation shall be as per manufacturer's datasheet. or, Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required.	Within 3 months



F-8	Means of Egress	Intermediate handrails were not provided when the stair width exceeds 2.2 m (87 in.) Location : Building 1 (Stair 1 & 5)	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.	Within 1 month
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F-9	Means of Egress	The clear exit door width was measured only 28 inch where the requirement is minimum 39.5 inch (1 Meter). Location: Building-1 (1st floor, Stair-2)	New exit doors along the means of egress shall have a minimum width of 1 m (39.5 in.). ACCORD Standard : 6.5.6.1.2	Within 3 months
				
F-10	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes. Location: Building 1 (3rd floor)	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 3 months



F-11	Egress lighting(ITM)	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The ACCORD standard.	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The ACCORD standard. Keep written records on-site.	Within 1 months
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F-12	Fire Protection System(ITM of Extinguisher)	Inspection, testing, and maintenance of the extinguisher system is not in accordance with NFPA 10 or as per Accord standard	Inspect, test and maintain the extinguisher system, and keep written records on-site, in accordance with NFPA 10 or as per Accord standard.	Within 1 month

F-13	Fire Protection System(Standpipe)	Standpipe installation requires detailed review to confirm compliance with NFPA 14, 20 and ACCORD standards. Location: Building 1	Submit the standpipe system drawing to RSC for review. Once reviewed, install or modify the standpipe system throughout the building in accordance with Accord 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.	Design within 2 months, Install within 5 months.
F-14	Fire Protection System(ITM of Standpipe)	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 25 or as per Accord standard	Inspect, test and maintain the Standpipe system, and keep written records on-site, in accordance with NFPA 25 or as per Accord standard	Within 1 Month after installation.

F-15	Fire Alarm & Detection System (FADS)	Fire alarm system installation requires detailed review to confirm compliance with NFPA 72 and ACCORD standards. Building-1	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review. Once reviewed, install or modify the fire detection and alarm system (where required) throughout the building in accordance with Accord standard and NFPA 72. The factory management shall contact RSC to conduct the final acceptance testing after the installation, testing & commissioning.	Design within 2 months, Install within 5 months.
F-16	Fire Detection System (ITM of FADS)	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 or as per Accord standard	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72 (Table-14.3.1) or as per Accord standard.	Within 1 Month after installation.

Table-2: Building no: 04, Garments production building

SI No.	Category	Findings	Required Action	Remediation Time Frame
F-17	Fire Rated Construction	Rooms used for storage of combustible materials are not separated from the office & engraving section at ground floor And from inspection room & office at 1st floor. Location: Building 4, ground floor	Rooms used for storage of combustible materials shall be separated from the surrounding occupancy with a minimum 1 hour construction.	Within 3 months
				
F-18	Fire Rated Construction	Chemical Storage where hazardous chemical were strode discharged directly into the exit stair enclosure/passageway. (Connected with AOP shed) Location: Building-4 (Ground Floor)	Provide vestibule in-between chemical store and stair enclosure with minimum fire rating 3-hr.	Within 3 month



F-19	Fire Rated Construction	Areas used for in-process storage of combustible materials are open to the surrounding occupancy. Located: Building 4, 1st floor cutting	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Or, Where separate storage rooms are not feasible, 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.	Within 3 month
				

F-20	Fire Rated Construction	The exit stairs are not separated from work areas on each floor by fire-rated construction. Stair Connected with floor by glass partition. Location: Building-4 (1st floor to 5th floor)	The exit stair enclosure shall be provided with a minimum 2- hr. fire resistance rating. Provide 1.5 hr. fire rated door and seal all penetrations and openings by 2 hr. fire rated fire rated barrier construction. Provide a fire-resistive rated assembly between the exterior exit stairs and the building up to 10 ft. beyond the end of the stair to achieve the required separation. The rated assembly shall be approved and/or designed by a qualified fire protection engineer. 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.	Within 3 month
 				

F-21	Fire Rated Construction	Penetrations through fire rated floor/ceiling assemblies are not properly sealed. Location: Building-4 (all floor)	Seal all penetrations and openings in floor/ceiling assemblies to maintain the fire separation at least by 3-hr. The used sealer shall be 3rd party certified and installation shall be as per manufacturer's guideline. or, Provide a minimum 2-hr fire rated shaft to separate the utility risers from each floor if required.	Within 3 months
 				
F-22	Fire Rated Construction	The Dining area is not separated by fire rated construction with the adjacent production occupancies. Location: Building-4 (5th floor)	Separate the dining area from production & other occupancies by minimum 3-hr fire rated construction. Provide rated exit passageways leading directly to the exit stairs of the same resistance rating.	Within 3 months



F-23	Means of Egress	Single exit found on 2nd floor east block office & staff dining area. Location: Building-4 (2nd floor)	The number of means of egress from any space shall not be less than 2 except where occupant load more than 49. So, here at lease ensure that the occupant load does not exceed 49 under any circumstances.	Within 1 month
F-24	Egress lighting(ITM)	Inspection, testing, and maintenance for the exit sign and emergency lighting system was not in accordance with The ACCORD standard.	Inspect, test and maintain the exit sign and emergency lighting system in the accordance with The ACCORD standard. Keep written records on-site.	Within 1 months

F-25	Fire Protection System(ITM of Extinguisher)	Inspection, testing, and maintenance of the extinguisher system is not in accordance with NFPA 10 or as per Accord standard	Inspect, test and maintain the extinguisher system, and keep written records on-site, in accordance with NFPA 10 or as per Accord standard.	Within 1 month
F-26	Fire Protection System(Standpipe)	Standpipe installation requires detailed review to confirm compliance with NFPA 14, 20 and ACCORD standards. Location: Building 4	Submit the standpipe system drawing to RSC for review. Once reviewed, install or modify the standpipe system throughout the building in accordance with Accord 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.	Design within 2 months, Install within 5 months.
F-27	Fire Protection System(ITM of Standpipe)	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 25 or as per Accord standard	Inspect, test and maintain the Standpipe system, and keep written records on-site, in accordance with NFPA 25 or as per Accord standard	Within 1 Month after installation.

F-28	Fire Protection System(ITM of Fire Pump)	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 25 or as per Accord standard	Inspect, test and maintain the fire pump, and keep written records on-site, in accordance with NFPA 25 or as per Accord standard	Within 1 Month after installation.
F-29	Fire Alarm & Detection System (FADS)	Fire alarm system installation requires detailed review to confirm compliance with NFPA 72 and ACCORD standards. Building-4	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review. Once reviewed, install or modify the fire detection and alarm system (where required) throughout the building in accordance with Accord standard and NFPA 72. The factory management shall contact RSC to conduct the final acceptance testing after the installation, testing & commissioning.	Design within 2 months, Install within 5 months.
F-30	Fire Detection System (ITM of FADS)	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 or as per Accord standard	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with table-14.3.1 of NFPA 72 or as per Accord standard.	Within 1 Month after installation.

Table-3: Building no: 03, AOP steel shed & Building no: 05, Fire pump room

Sl No.	Category	Findings	Required Action	Remediation Time Frame
F-31	Fire Rated Construction	Chemical storage area is not properly separated by fire-rated construction with other process. Location: Building-3 AOP & Buildin-4 ground floor attached	Separate the chemical storage room by minimum 4-hr fire rated construction. Seal all penetrations and protect the openings to maintain the required fire separations. Keep 16-points MSDS of all chemicals in the storage area. ** As per BNBC, chemical storage room shall be Type-1 construction. Follow section-2.13 and Table 3.2.1 of BNBC-2006 for the guideline.	Within 3 months
				

F-32	Means of Egress	Sliding type doors have been provided along the exit way. A pocket door was observed but during inspection it was found locked. Location: Building-3, AOP	Replace sliding type doors & gates by the side-hinged swinging type doors. If locks are required for security reasons, utilize special door locking features complying with NFPA 101.	Within 1 month
				

F-33	Fire Alarm & Detection System (FADS)	Fire alarm system installation requires detailed review to confirm compliance with NFPA 72 and ACCORD standards. Location: Building-3, Pump room and Utility Building.	Submit as-built drawings, testing records, equipment certification and other relevant documentation to the RSC for review. Once reviewed, install or modify the fire detection and alarm system (where required) throughout the building in accordance with Accord standard and NFPA 72. The factory management shall contact RSC to conduct the final acceptance testing after the installation, testing & commissioning.	Design within 2 months, Install within 5 months.
F-34	Fire Detection System (ITM of FADS)	Inspection, testing, and maintenance for the fire alarm system is not in accordance with NFPA 72 or as per Accord standard. Location: Building-3, Pump room and Utility Building.	Inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with table-14.3.1 of NFPA 72 or as per Accord standard.	Within 1 Month after installation.
F-35	Fire Rated Construction	The fire pump room is not provided with adequate fire separation with adjacent wastage store, where non-rated openings on both wall are available. Moreover, the roof for both structure is non-rated where the distance is only 5 ft approximately. Location: Building-5 (Fire pump room)	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

