

INITIAL FIRE SAFETY INSPECTION REPORT

KSS Knit Composite Ltd. (Extension buildings)

RSC ID: 24422

Boherar Chala, Sreepur, Maowna

Other Factories: KSS KNIT COMPOSITE LTD. (ID- 12444)



Inspected By: Mohammad Anayet Hossains & Md. Khalaquzzaman

Date: 29 May 2022

Fire Safety Inspection Report

KSS Knit Composite Ltd. (Extension buildings)

Introduction:

KSS Knit Composite Ltd. (Extension buildings) was surveyed for fire safety on 29 May 2022 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:09, Warehouse Building (B+G+7)
2. Building no:06, Fire Hydrant Building (B+G+5)
3. Building no:04, Office building (G+3)
4. Building no:07, ETP Building (G+1)
5. Building no:05, Utility Building (G+1)
6. Building no:10, Dyeing Shed
7. Building no:08, Sewing thread (G+1)

Boherar Chala, Sreepur, Maowna

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Introduction:

KSS Knit Composite (Extension Building) complex was surveyed for fire safety on **29/05/2022** 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.

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 approval.

Table-1 Findings & Recommendations:


SI No.	Category	Findings	Required Action	Remediation Time Frame
1	Fire Rated Construction	The exit stairs are not separated from work areas and other spaces on each floor by fire-rated construction. During inspection it was observed that the factory has installed fire doors at exit. Locations: All Buildings.	The exit stair enclosure shall be provided with a minimum 1-hr fire resistance rating for buildings with 3 or fewer stories and a minimum of 2- hr. fire resistance rating for buildings 4 or more stories. Provide 0.75 hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated fire rated barrier construction for building with 3 or fewer stories. Provide 1.5 hr. fire rated door and seal all penetrations and openings by 2 hr. fire rated fire rated barrier construction for building with 4 or more stories. 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. 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 ACCORD/RSC standard 6.8.3.1	Within 3 months




2	Fire Rated Construction	<p>Elevator shafts are directly open into the exit Enclosure.</p> <p>Location: Building-09(Stair-1/SE side)</p>	<p>For new construction, elevators shall not open into an exit enclosure as per ACCORD/RSC-6.14.3. So, separate the stair enclosure from elevator shaft although the building.</p>	Within 3 months
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3	Fire Rated Construction	Unsealed penetrations and openings are located in the exit stair enclosures. Locations: All Buildings.	Seal all penetrations and openings in exit stair enclosure walls to maintain the fire separations.	Within 3 months
				
4	Fire Rated Construction	The main structural elements of the buildings are constructed by steel which is non-rated and were found in exposed condition without any fire protection. Location: Building-10 (Dyeing Shed)	The buildings are new steel structure which shall be type-I or II construction. So, provide require rating in the structural elements of the buildings. Consult with a qualified fire protection engineer. Follow BNBC 2006-Table 3.2.4, 3.1.9 and 3.3.1 as reference.	Within 6 months
				

5	Fire Rated Construction	Areas used for combustible storage located at several locations are not separated by fire rated construction.	Provide dedicated storage rooms separated by minimum 1-hr fire-rated construction. Where separate storage rooms are not feasible, provide defined storage areas and limit the storage arrangement as follows: - Maximum height of 2.4m and maximum area of 23m ² - If sprinkler protected: maximum height of 3.66m and maximum area of 93m ²	Within 3 months
				
6	Fire Rated Construction	Rooms used for combustible storage are not separated by fire rated construction located at several locations.	Separate the dedicated storage rooms by minimum 1-hr fire-rated construction. Provide 0.75 hr. fire rated door and seal all penetrations and openings by 1 hr. fire rated fire rated barrier construction.	Within 3 Months

7	Fire Rated Construction	Chemical storage area is not separated by fire-rated construction due to unsealed penetrations and openings. Location : Building-09 (Basement); Building-06 (Ground Floor)	Separate the chemical storage room by 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. Ensure that the building/room houses chemical is Type-1 construction. As per BNBC, chemical storage room shall be Type-1 construction (Table-3.2.4 of BNBC-2006). Follow section-2.13 and Table 3.2.1 of BNBC-2006 for the guideline.	Within 3 Months
				
8	Fire Rated Construction	The raised walkways between building 1 and 9 at 2nd floor are not separated by fire-rated construction. Location	Provide 2-hr fire rated construction or provide 1.5-hr fire rated door.	Within 3 Months
9	Means of Egress	Handrails are not provided on both sides of the exit stair. Location: Building-06, Building-09	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 1 month
10	No Parapets or Guards	Parapets or guards are not provided in occupied/occupiable roof. Location: Building-06 (Fire hydrant building)	Provide parapets or guards with a minimum height of 42 in. for all occupiable roof areas.	Within 1 month

11	Fire Alarm & Detection System (FADS)	Installation of addressable fire alarm & detection system is ongoing. The Required Fire Alarm system is not installed in accordance with the ACCORD standard and NFPA-72. Location: All buildings in the pemises.	Design & Installation of Fire Alarm system shall be in accordance with ACCORD standard and NFPA 72. Submit design, documents and calculations to RSC for review prior installation/modification. After installation the owner shall contact the RSC for witness of conducting the final acceptance testing of the fire detection & alarm system installation. Also inspect, test and maintain the fire alarm system, and keep written records on-site, in accordance with NFPA 72.	Design within 2 months, Install within 5months.
12	Fire Protection System(Standpipe)	Installation of standpipe system is ongoing. The Required Standpipe System is not in accordance with the ACCORD standard and NFPA-14, 20, 22 and 24. Locations: Building-04; Building-06; Building-09.	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 fire protection System(Standpipe) installation.	Design within 2 months, Install within 4 months.
13	Fire Protection System(Sprinkler)	Installation of sprinkler system is ongoing. The Required sprinkler System is not in accordance with the ACCORD standard and NFPA-13, 20, 22 and 24. Locations: Building-09.	Submit the sprinkler system drawing to RSC for review. Once reviewed, install or modify the standpipe system throughout the building in accordance with Accord standard and NFPA 13,20,22 and 24. After installation the owner shall contact the RSC for witness of conducting the final acceptance testing of the fire protection System(Sprinkler) installation.	Design within 2 months, Install within 4 months.
14	Fire Protection System(ITM of Standpipe)	Inspection, testing, and maintenance for the Standpipe system is not in accordance with NFPA 14,25 or as per Accord standard	Inspect, test and maintain the Standpipe system, and keep written records on-site, in accordance with NFPA 14, 25 or as per Accord standard	Within 1 Month after installation.

15	Fire Protection System(ITM of Sprinkler)	Inspection, testing, and maintenance for the Sprinkler system is not in accordance with NFPA 13,25 or as per Accord standard	Inspect, test and maintain the Sprinkler system, and keep written records on-site, in accordance with NFPA 13, 25 or as per Accord standard	Within 1 Month after installation.
16	Fire Protection System(ITM of Fire Pump)	Inspection, testing, and maintenance for the fire pump is not in accordance with NFPA 20,25 or as per Accord standard	Inspect, test and maintain the fire pump, and keep written records on-site, in accordance with NFPA 20, 25 or as per Accord standard	Within 1 Month after installation.
17	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 or as per Accord standard.	Within 1 Month after installation.
18	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
19	Means of Egress	Re-entry from exit stair enclosure not provided.	Exit 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 month
20	Means of Egress	Electrical panels were located in all the exit stair enclosures. Location: Building-09 (Stair0-1/SE Side)	Remove and re-locate all electrical panels from exit stair enclosures.	Immediate
21	Means of Egress	Building did not have stair designation signs & exit designation signs at required locations.	Provide stair designation sign & exit 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
22	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
23	Means of Egress	Fire evacuation maps is not posted at the entrance of all exit stair.	Fire evacuation maps shall be posted at the entrance to each exit stair.	Within 1 month

24	Egress Lightning	Exit sign not provided at required location at 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. Lighted exit signs shall be provided with either battery backup or uninterruptable power supply systems and shall be continuously illuminated.	Within 1 month
25	Egress Lighting	Based on the number and location of emergency lights observed, adequate illumination levels are not anticipated along egress routes.	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
26	Inspection, testing, and maintenance of the emergency lighting system (ITM).	Inspection, testing, and maintenance for the emergency lighting system was not in accordance with The RSC/ACCORD standard.	Inspect, test and maintain the emergency lighting system in the accordance with The ACCORD standard. Keep written records on-site.	Within 3 months